HOME STUDY COURSE

MODERN HARMONY

Lessons 1 to 12

Reg. U. S. Pat. Off.

U. S. SCHOOL OF MUSIC
NEW YORK

A Course In Modern Harmony

by

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U. S. SCHOOL OF MUSIC
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DEAR STUDENT:

As you take this Course into your hands and begin to read, you are approaching the world of sound. Here you will find the "know how" of the construction and movement of tone. You will open the doors of understanding for all the music you have heard. You will learn to test your own creative ability in the universal language.

Form good habits from the beginning. Study no more than one Lesson a week, working at the same time each day. A little overtime does not matter because in this way, you will master each Lesson before going on to the next. As you learn every new rule of harmony, compare it in sight and sound with previous progressions. By constantly reviewing, you will make each new musical device a working tool to be used as taste and need demand.

You cannot write too much. Even when you have worked out each Writing Lesson as many different ways as you can, invent and harmonize more exercises. Writing music should come as naturally to you as writing a letter.

Never let yourself become discouraged. Instead, have the courage to try again. As a question arises, read and reread the Lessons to find the answer and if the problem still persists, write to the Harmony Department stating Lesson and page number so we can advise you. Harmony is easy if you think each rule through; then develop your own personal expression within the harmonic laws.

Music is a tonal language. To be understood, you must write with correct musical grammar just as you write sentences and speak with correct English grammar.

May your progress in composing be comparable with our desire for your success.

THE AUTHOR: *Jane M. Kolb started composing at the age of 6 and performed her debut piano recital at 10. While in High School, she became assistant church organist and youth choir director, later holding posts as organist and choir master in large Philadelphia churches.*

She graduated from the Philadelphia Conservatory of Music with Teacher's Certificate and Bachelor of Music Degree; studied composition with Dr. Frederick Schleider, Paul Nordoff and Eric Itor Kahn; has performed as a concert pianist, organist and radio artist. Her compositions include works for orchestra, piano, organ, voice, chamber music, musical comedy and arrangements. At present, she is assistant to the Director of the U. S. SCHOOL OF MUSIC.

THE MUSIC MAP

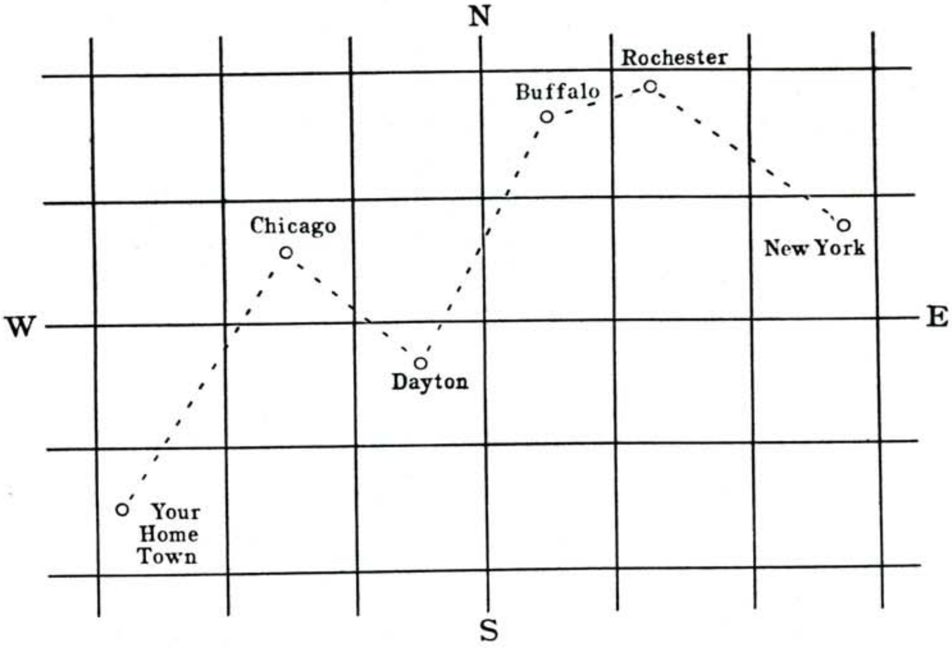
Let us suppose you live in the central part of the U.S.A., and one fine day you decide to take a vacation trip. Before the first excitement has died down you will probably obtain a road map of the country and start planning your trip in detail so as to cover all the places you have always wanted to visit.

Being a systematic person, you take a ruler and pencil to draw lines on the map dividing the surrounding country into equal sections. Then you draw a dotted line from the starting point to each large city you plan to visit on the trip.

Let's say that when you leave your home town in the central U.S.A. your route goes northeast to Chicago, then southeast to Dayton, next northeast again to Rochester, on to Niagara Falls, then down to New York.

At this point you put your pencil aside and determine to figure out the rest of your trip later.

So far your imaginary route would look like this:



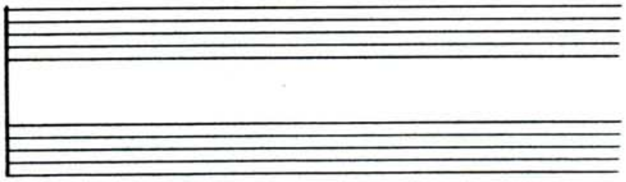
The world of tone can be mapped or graphed in a somewhat similar manner, not in terms of countries, states, and cities, but, rather in terms of lines, spaces, and notes.

Remember the last time you heard a symphony orchestra? As you listened you may have said to yourself, "The music thrills me, but I can't figure it out. It all seems so complicated, and it keeps going up and down!" To a musician it also goes up and down, but he realizes

how far up or down the music is traveling. He is aware, too, that the tones are moving in a horizontal direction.

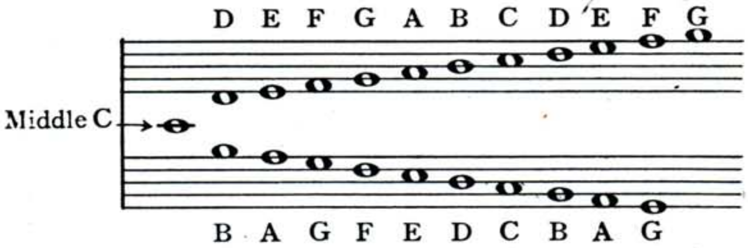
Just as the stops in your imaginary trip go up and down on the map, so do musical notes. Observe that the general direction of the trip is from West to East in a horizontal direction. Music also follows this pattern. The route that music takes is as clear to a musician as your trip across the United States was to you.

When a composer sets out to write music he takes a musical trip. His map looks like this:



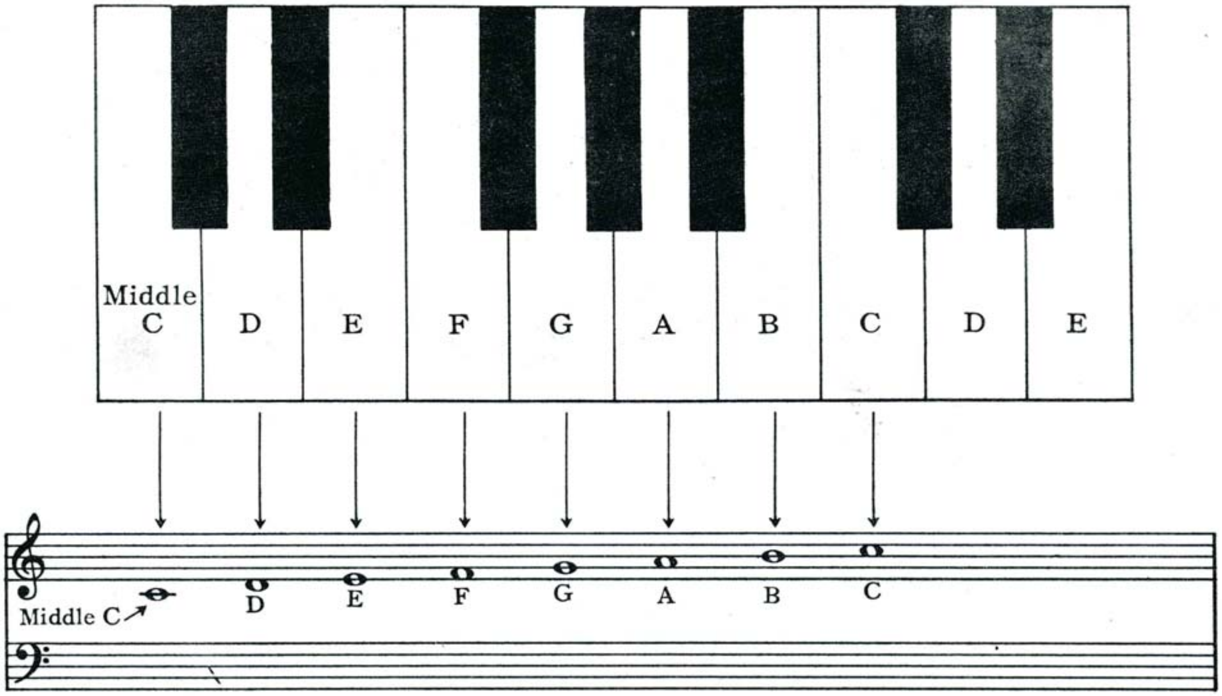
The music map consists of two groups of lines and spaces. The upper group has five lines and four spaces as does the lower group. This lower group of lines and spaces is known as the lower staff. The upper group of lines and spaces is called the upper staff. Both staffs together are known as the Great Staff.

Let's draw an imaginary line in the middle of the Great Staff between the lower staff and the upper staff.



The note drawn on this imaginary line is called middle C. (Middle C on the piano is the C nearest the maker's trademark.) This note is the center of the tonal world. Above and below middle C there are several groups of twelve tones each. On the piano they group themselves into seven white keys and five black keys. Such a group is called an octave, as C to C, D to D, etc.

If we write a note on each successive line or space starting with middle C and go as far as we can in either direction, we shall be mapping out the white keys on the piano. If we want to know the names of the notes we need know only our alphabet. Starting with C we follow with D, E, F, G, then the music alphabet begins with A, B, and C again, continuing up the staff to the top space, G. Below middle C we follow the same procedure going down – C, B, A, G, F, E, D, and C, continuing down to the last line on the lower staff, which line is G.



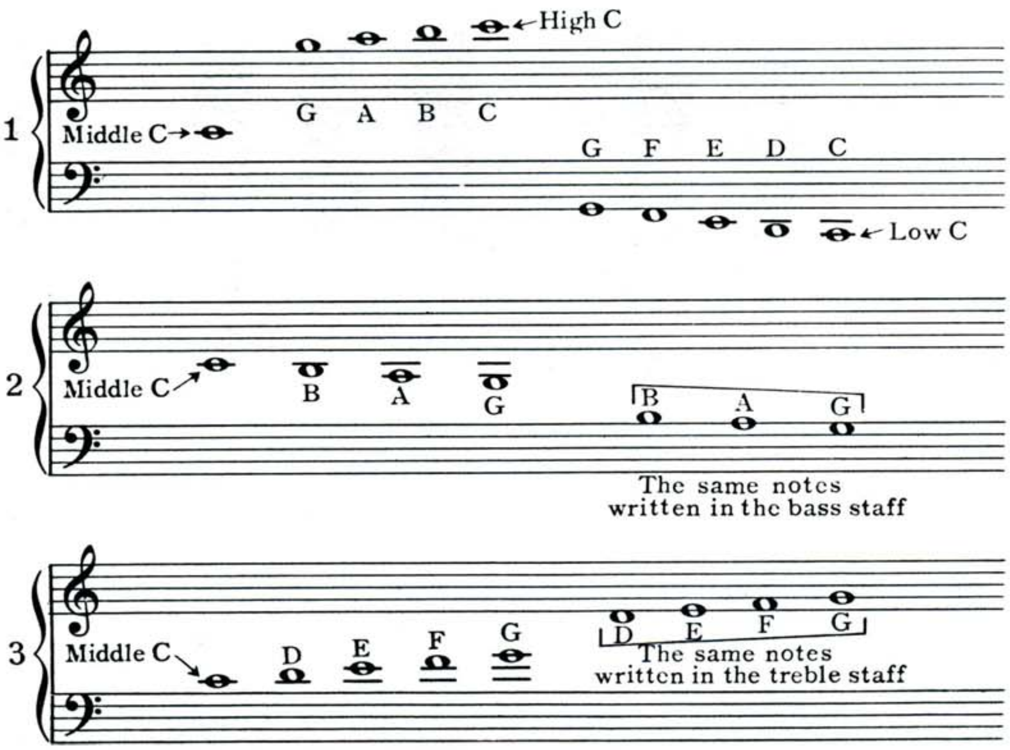
It is possible to go still higher on the upper staff and still lower on the lower staff, but to do so we must add short lines called leger lines. So, to our route we shall now add three notes above the upper staff and four notes below the lower staff. See example 1.

In harmony the upper staff is used for writing the soprano and alto parts, and the lower staff is used for writing the tenor and bass parts. The words, soprano, alto, tenor, and bass are used because harmonic laws were discovered and put into practice long before instruments were invented. In that ancient time it was discovered that women's voices, as well as men's voices, were of two varieties, high or low. So, when music was written for choirs, the musicians who arranged folk or church music wrote four different parts: the high part for women, (soprano), the low part for women, (alto), the high part for men, (tenor), and the low part for men, (bass).

In the examples, ex. 1 shows how notes are added above the upper staff for exceptionally high (soprano) parts, and how notes are added below the lower staff for very high (bass) parts.

Ex. 2 shows how notes are added below the upper staff for exceptionally low (alto) parts.

Ex. 3 shows how notes are added to the top of the lower staff for very high (tenor) parts.



Notice the symbols at the head of each staff. The one on the upper staff is called the treble clef sign. The one on the lower staff is called the bass clef sign. When the treble clef sign is written in the upper staff, the staff is called the treble staff. When the bass clef sign appears in the lower staff, the staff is called the bass staff.

So far on the tone highway we have seen where the white keys on the piano are located on the great staff.

If you look at a piano keyboard you will notice that in every octave from C to C there are not only eight white keys but also five black keys. Each of these black keys has two names.

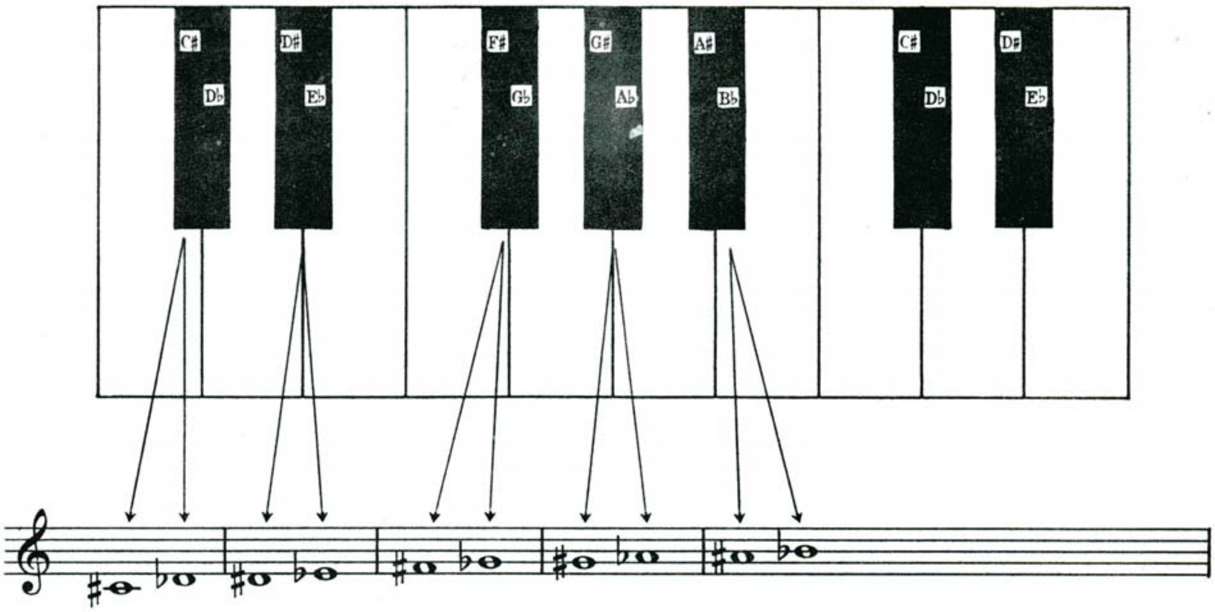
Let's take them one at a time. Look at the black key between C and D. It is called either C sharp or D flat.

Now, look at the black key between D and E. It is called either D sharp or E flat.

The black key between F and G is known as F sharp or G flat. The one between G and A is G sharp or A flat. The one between A and B is A sharp or B flat.

How can we tell the distance in tone between different notes or keys on the piano?

The smallest interval in music is the half step. A half step is the distance from any key on the piano to the next key, black or white. A whole step is equal to two half steps.



Why are there no black keys between E and F, or B and C?

This is because the interval between is only one half step. All the other white keys are a whole tone apart.

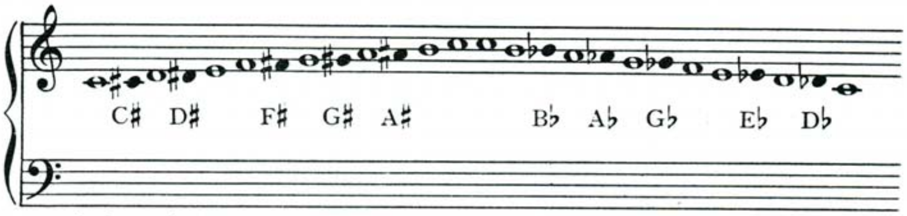
Now, play middle C, or any other C on the piano, and every black and white key above in succession, omitting none. Stop when you hit the C an octave above.

Now, start with that C and play every white and black key below in succession until you come back to the C with which you began.

Did you notice each tone was the same interval apart in sound?

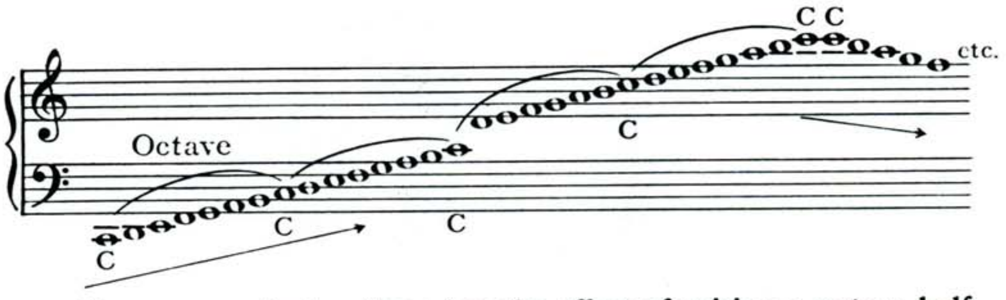
You have just played the half step, or *chromatic scale* of tone. As you ascended the black keys were called sharps, and when you descended the black keys were called flats.

Let's see what this would look like if it were written as notes on our music map, or Great staff. We shall start at middle C.



A sharp in front of a note raises the note ½ step. A flat in front of a note lowers the note ½ step.

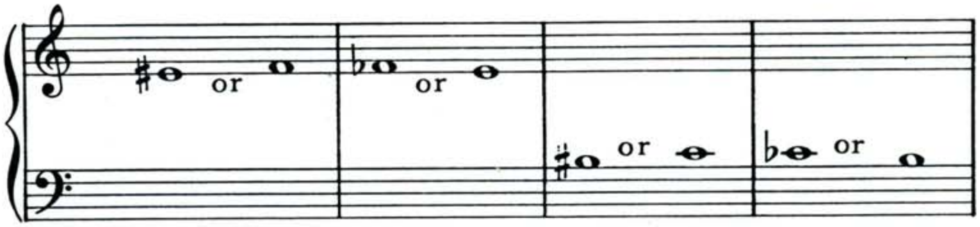
Compare the *chromatic highway* with the *white key highway*. Start with low C and go to high C and then back to low C again.



You can see that a sharp has the effect of raising a note a half step and a flat has the effect of lowering a note a half step. Most of the times that you see a sharp or a flat in front of a note you will be right in thinking that it represents a black key on the piano. However, this is not always true.

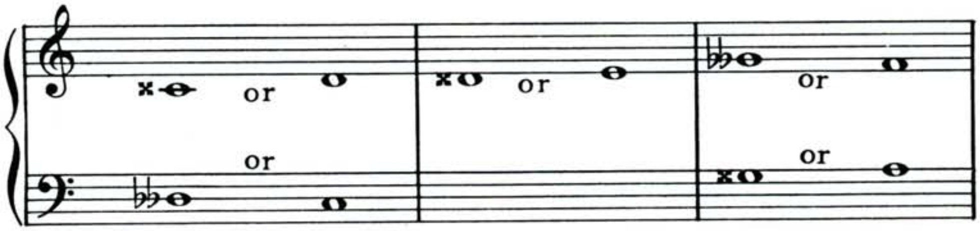
Look again at the piano. Play notes E and F. Suppose we place a sharp in front of E. What note will you play?

Remember, a sharp raises a tone a half step. That means E sharp is the same as F. By the same system F flat is the same note as E. Likewise, B sharp equals C, and C flat equals B.

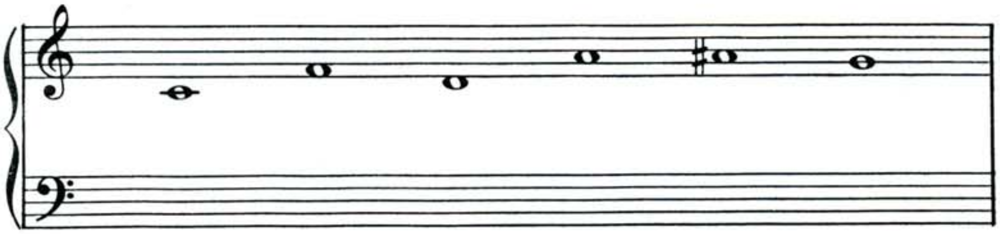


Composers sometimes make use of a double sharp, (X), which means that instead of raising a tone one half step it is raised two half steps.

For example, suppose we wish to double sharp C. Simply play tone D, which is two half steps above C. Sometimes it is easier to think of a double sharp as a whole step above the double sharped note. A double flat (♭♭) lowers a note two half steps.



Since we understand the music map and know how to travel vertically and horizontally in the music world, let's take a musical trip similar to the imaginary journey we took between central U. S. and New York. If you remember, we passed through six cities. Here we shall pass through six tones on the musical highway.



So you see, music notation is like a map a composer gives us in order that we can follow his excursion through the tonal world. In the above illustration we not only took a musical trip up and down but also across. It is important to realize that music goes in a definite direction horizontally. Music is not just a jumble of sounds. It is a series of carefully organized tones infused with the feelings of the composer.

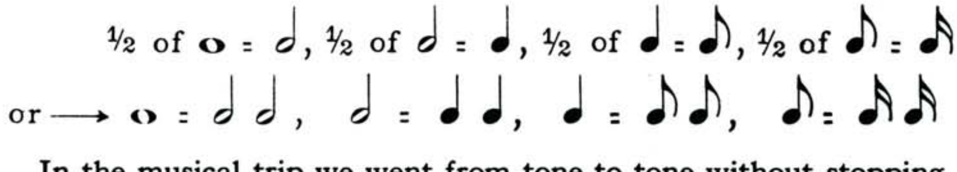
You have noticed in the above example that during our musical trip, which began at middle C and ended at G, five notes above, we stayed at each note the same length of time. Each of these notes is called a whole note. If we had wanted to stay at any one note for just half as long as a whole note we would have indicated this by adding a stem to the note. The note would then have been called a half note.

If we had wanted to stay at any note one fourth (¼) as long as a whole note we would have not only added a stem but also made the note black instead of white. This note would have been called a quarter note.

In the same process we could have indicated one eighth (⅛) of a whole note. This note is called an eighth note. It is written by adding a flag to the end of the stem of a quarter note, or by adding a heavy line when there are two or more eighth notes.

One sixteenth (1/16) of a whole note is called a sixteenth note. It is made by adding another little flag to the stem of an eighth note, or by adding two heavy lines when there are several sixteenth notes.

It is evident that the relation between each of these notes is simply a matter of simple arithmetic. A sixteenth note is one half of an eighth note. An eighth note is one half of a quarter note. A quarter note is one half of a half note. Lastly, a half note is one half of a whole note.



In the musical trip we went from tone to tone without stopping. However, suppose we had wanted to take a rest between tones. How would we have shown that?

The answer is that we would have put some sort of sign to show that we wanted to stop and just how long we wanted to stop. If we had wanted to stop as long as a whole note we would have shown it by drawing a whole rest. To stop as long as a half note would have been shown by a half rest. To stop as long as a quarter note would have required a quarter rest. In the same way we should have invented eighth rests or sixteenth rests.

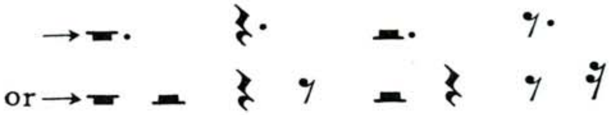
Here is the way rest signs look. Compare them with the notes below them.

It should be clear now just how to indicate different time values to notes. We have seen the relationship of the whole note to the half, quarter, eighth, and sixteenth notes. However, suppose we wish to hold a note for the time value of one half note plus the time value of one quarter note. This can be accomplished by using a line to tie the two notes together. This use of the tie then indicates that once the half note is sounded it ties over into the quarter note. The quarter note is not struck since the tie shows that the half note is merely held half again as long.

Tying a half note to a quarter note is only one example, but any two notes of the same letter name may be tied as shown in the examples below.

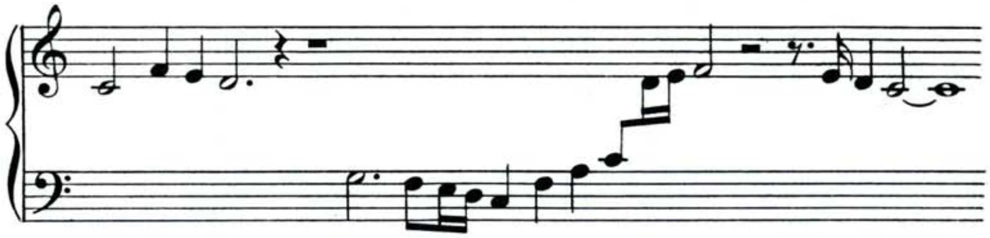
There is another method of increasing time values. When a dot is placed after any note it signifies that the note is increased by one half its original value. For example, if a dot is placed after a whole note it will have the same time value as if a half note were tied to the whole note. Look at these few examples of the use of the dot.

The use of the dot also can be applied to rests.



Since you know the staff, the names of the notes, the note values, the rests, the use of the tie, and the use of the dot, look at the example below and ask yourself these questions. What is the name of each note? Where is it on the piano? What kind of a note is it? What

relation does it have to a whole note? What is the time value of each rest?



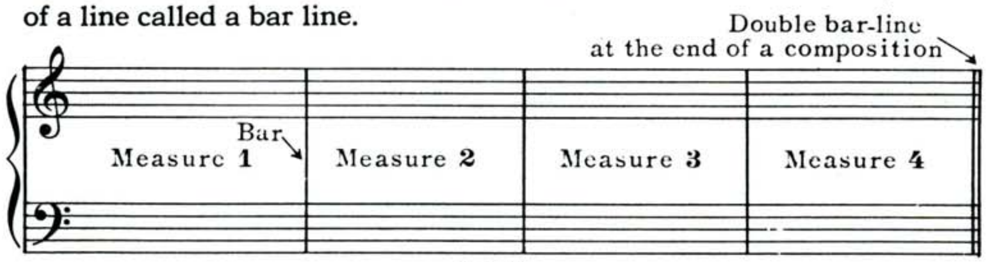
If you were to draw a road map of considerable distance you would be wise to mark it off in equal sections of so many miles to each section. In this way you could follow your route easily and know at any point just about how far you had traveled from one point to the next, and how far you would have to travel to the next points in the route.

Music is marked off in somewhat the same manner, but instead of being marked off in miles between towns, it is written as so many "beats" per measure. So, if we are to understand how to write music we must certainly know the meaning of beats and measures.

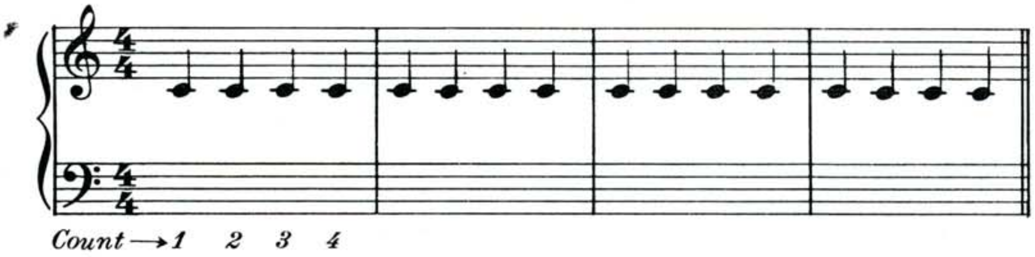
The last time you saw a parade and heard a band playing a lively march tune didn't you automatically tap your foot up and down in time with the music? Whether you realized it or not you were beating time to the music with the evenness of a conductor, standing in front of the band or directing it with his baton.

All music has this steady pulse, or beat, which is the pulse of life itself. This is one evidence that music is a part of nature. There is much in the world that goes along in definite, steady intervals. The days, months, and years since the beginning of time have come and gone at steady intervals. The trees, plants, and rivers have their rhythmic patterns. Our breathing has a regular beat. We walk with rhythm. The heart beats at steady intervals. Doesn't it seem logical that music should have rhythmic beats?

When these beats group themselves into equal groups, then these groups are called measures. Just as you marked your map off into equal miles, so composers mark music off into equal measures of so many beats each. A composer writes music with two beats to the measure, or three beats, or four beats, or in whatever measure he feels the music. At the end of each measure he marks the end by use of a line called a bar line.

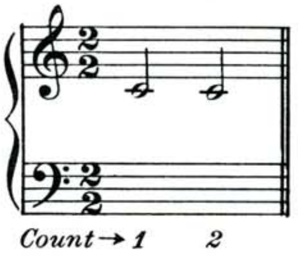


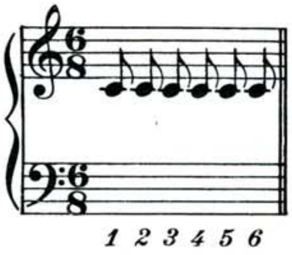
He can choose any note as the basis of the beats. He can use a quarter note, eighth note, half note, or any note he desires as one beat. For example, suppose he wants four quarter notes in every measure. He will first indicate this by use of a time signature at the beginning of the piece at the head of the great staff. In this case the time will be called 4/4. The number on top signifies 4 beats to the measure, and the number on the bottom signifies that each quarter note gets one beat.

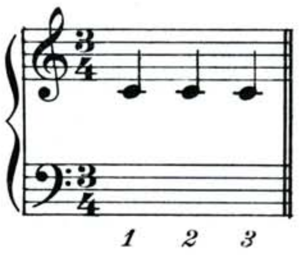


Other time signatures are used on the same principle. Always remember the top number is the number of beats in each measure, and the bottom number is the kind of note that gets one beat.

A few other examples will help to clarify time signatures further. 2/2 means there are two beats in a measure and the half note gets one beat. 6/8 means that there are six beats and each eighth note gets one beat. ¾ indicates that there are three beats in each measure, and that each quarter note gets one beat.



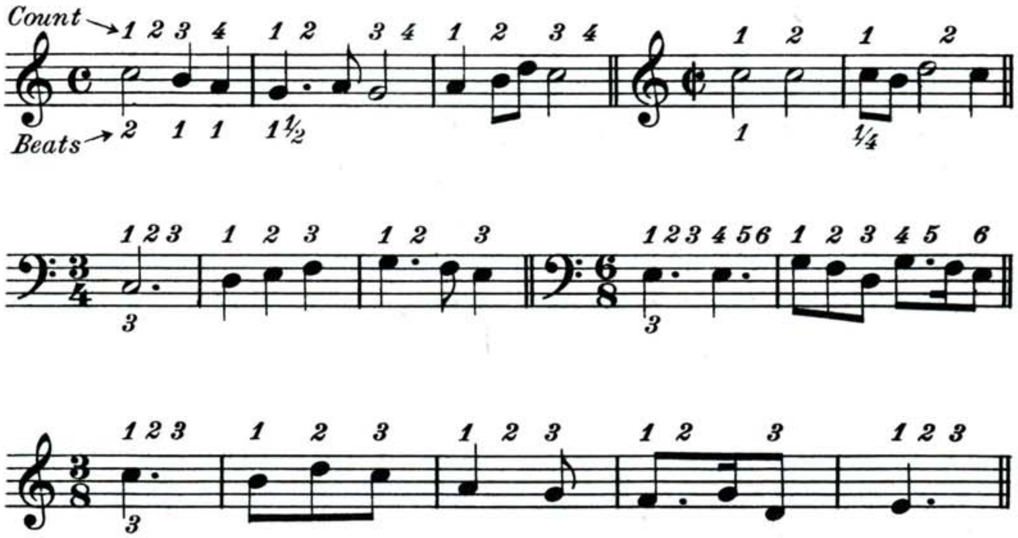




Since we know the way to count music we can figure out the beat value of whole notes, half notes, quarter notes, etc. in different time signatures.

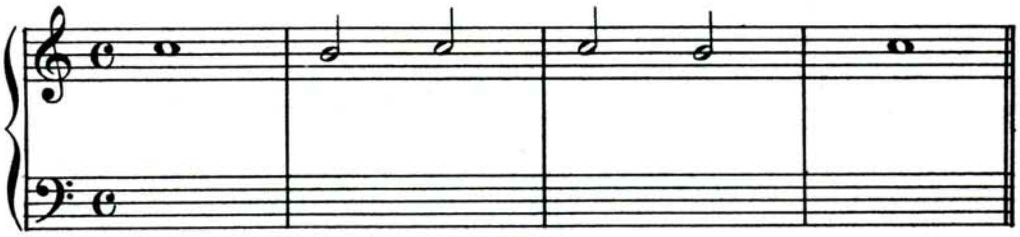
For example, suppose the time signature is 4/4. We know there are four quarter notes per measure. In other words, each quarter note gets one beat. Since a half note is equal to two quarter notes, a half note will sound for two beats. A whole note would get four beats. A dotted half would last for three beats.

In the following examples fill in the number of beats below each note without a number under it. Study the time signatures before you do each example. (Sometimes a large **C** is used to indicate 4/4 time. A large **C** with a line through it means half time, or 2/2 time.)

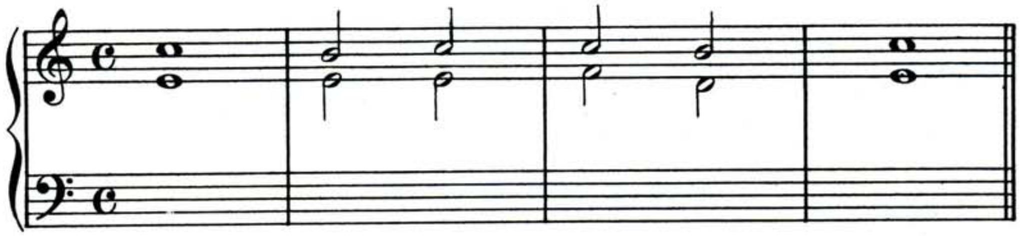


You know how to read the notes on the great staff. You understand note values. You understand beats and measures, and you know the meaning of the different time signatures. So, let's begin to write music in this very first lesson.

Get a piece of music paper and a pencil. We are going to copy a harmony example. First, draw the clef signs, the time signature, and line off the paper in four measures as in the illustration below. Put a double bar line at the end. Copy the soprano part.

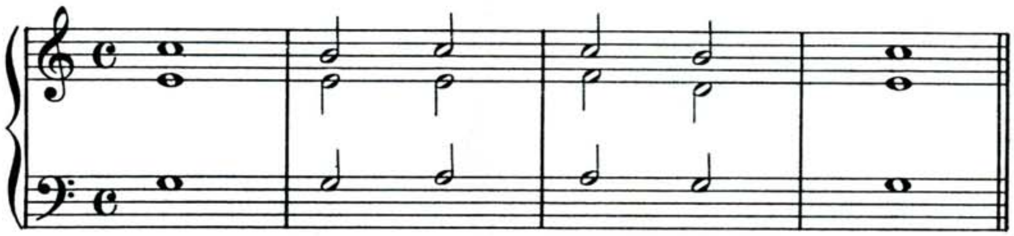


Copy the alto part with notes directly under the soprano part. (The method in which the stems are used in these examples is the way that they should be used throughout harmony. The soprano stems should point up, the alto down, the tenor up, and the bass down.)

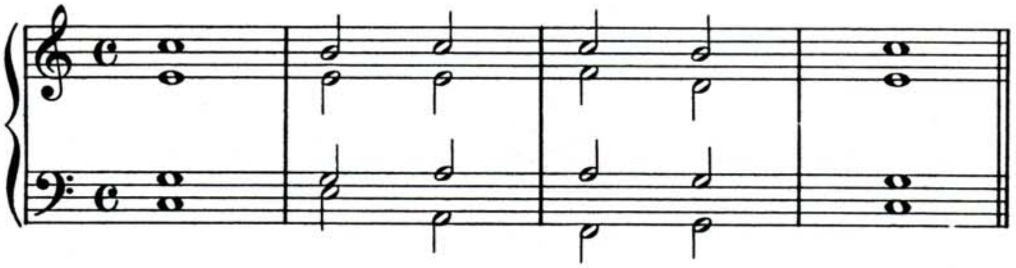


Copy the tenor part, keeping the notes directly under the soprano

and alto.

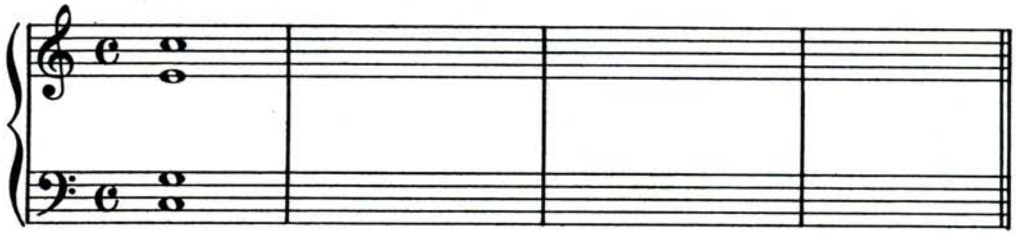


Finally, copy the bass part in the same way.

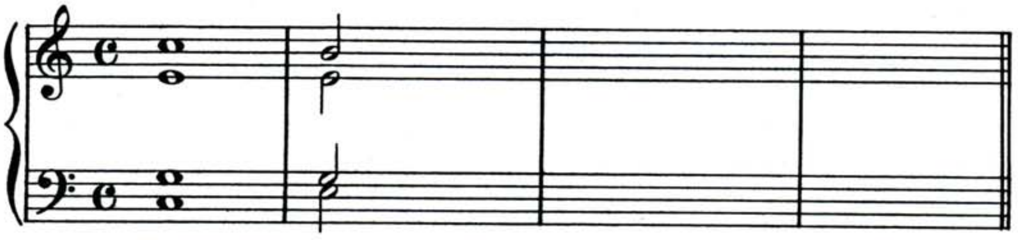


Don't put your pencil down. We're going to write the same music in a little different way.

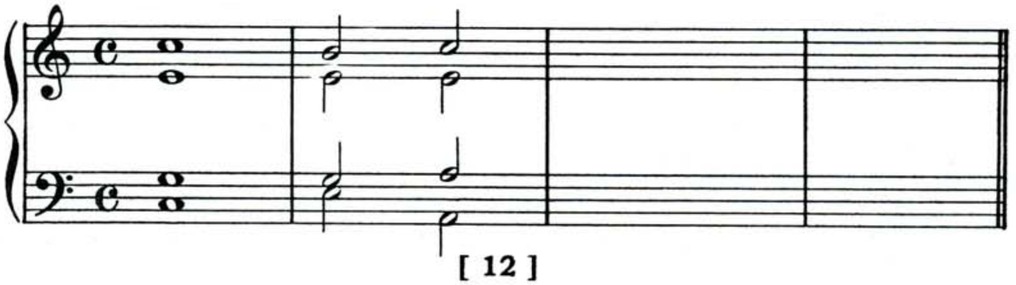
Again draw your clefs, time signatures, and bar lines. Then, copy the first note of the soprano, alto, tenor, and bass. As you will learn later these four notes are called a chord.



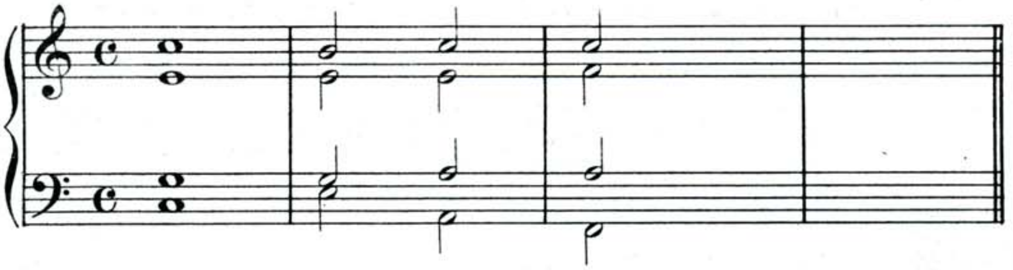
Copy the second chord.



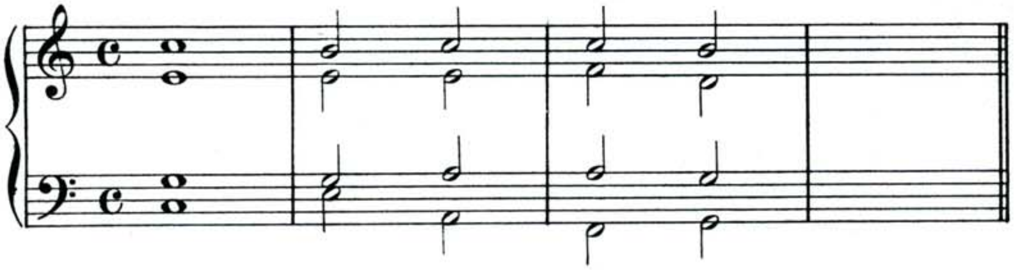
The third chord.



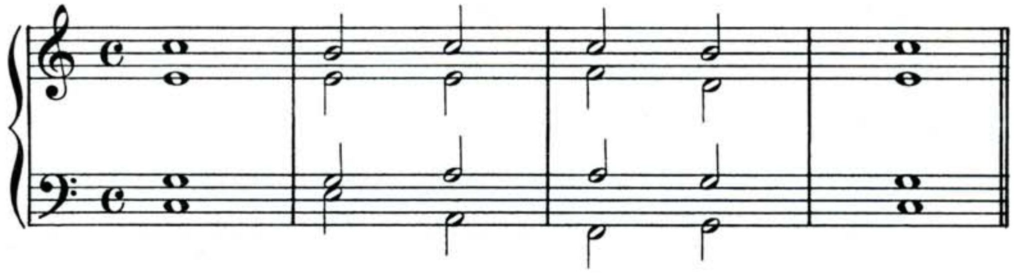
The fourth chord.



The fifth chord.



Finally, copy the last chord.



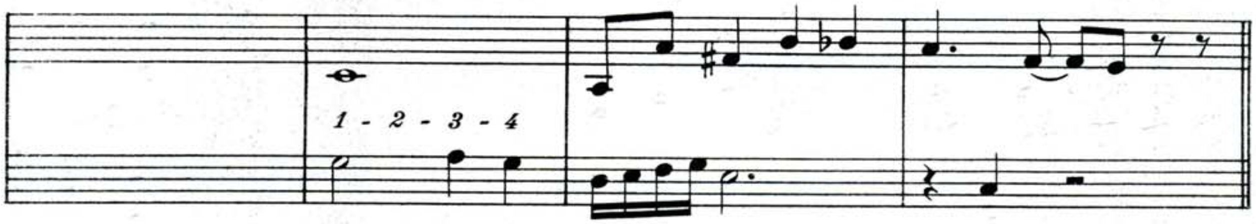
So, you see, we can look at harmony in two ways, horizontally and vertically. In the next few lessons you will begin to learn the natural laws of harmony. It is very important that you keep these two things in mind: **the four voice lines must move horizontally as smoothly as possible; each chord moves into the next chord according to certain rules, which rules are determined by the progression of the bass line, or part.**

With the above statements in mind look over the two examples you have just copied. See how smoothly each line moves, like a good main highway. Notice that the bass line leaps around more than the others, like a rolling country road. The bass has more freedom because all harmonic changes are developed from the bass. However, the upper voices do not become monotonous, since their smoothness provides contrast to the freedom-loving bass.

These ideas have been introduced for you to get a birdseye view of harmony before actually understanding the entire subject. It might be a good idea from time to time to refer to this part of lesson one so that you maintain an over-all picture as you advance in your study.

WRITING LESSON

1. Draw the treble and bass clef signs on the great staff below:



2. Put a time signature of 4/4 on the upper and lower staffs.

3. In the first measure write one whole note on the treble staff. (On any line or space. Do the same on the bass staff in the first measure.)

4. Place the letter name (A,B,C,D,E,F,G) under each note. In which measure is there a sharp?__________ A flat?__________

5. How many measures are there?_____ How can you tell?________ What is the double line at the end called?______________

6. In which measures are there leger lines?______________

7. In which measures are there sixteenth notes?____ A tied note?____ A dotted quarter note?________ A dotted half note?________

8. There are three types of rests in the last measure. Name them.

9. Mark off the beats in each measure. (See measure 2.)

10. How many black keys would be used if this piece were played on the piano?__________

DO NOT send this lesson sheet to the U. S. School of Music.

Check this writing lesson by going over it several times yourself.

NOTE: Please feel free at any time throughout the Course to write to the Advisory Service, U. S. School of Music, 225 Fifth Ave., New York, N. Y., if you have any question. We shall be glad to help you: Always Send Lesson and Page Number With Your Question.

♯ — Sharp Sign — Play Note ½ Step Higher
♭ — Flat Sign — Play Note ½ Step Lower
½ Step — Smallest Tone Distance
(From one key to the next key, black or white)
Whole Step — Two Half Steps

EXAMPLES:
C to C♯ = ½ Step
C to D = Whole Step
E to F = ½ Step
B to C = ½ Step
B to B♭ = ½ Step

THE SEVEN BASIC CHORDS

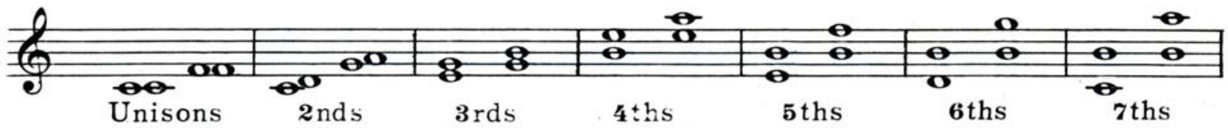
As you learned in the last lesson it is very important to study harmony horizontally as well as vertically. In this lesson we are going to look at music in a vertical way. Harmony is similar to architecture. No doubt you have seen houses under construction: workers clear a large plot of land, build foundations for several houses, and gradually pile brick upon brick until, in their skillful way, they've built a row of beautiful homes over a once vacant piece of property.

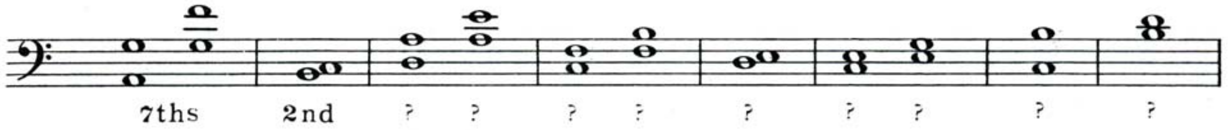
A composer goes about his work in somewhat the same way, starting with nothing but the mass of tones on the piano keyboard. Then, choosing a bass pattern, or foundation, he builds tone upon tone, forming a series of chords. Just as a house must have a foundation, so must a musical composition have a chordal foundation. Just as each home consists of brick upon brick, so does a chord consist of tone upon tone.

Intervals

Any tone placed over any other tone forms an interval. There are seven basic intervals. They are easy to learn. In measuring the seven basic intervals the first note is counted as one. Middle C with another middle C on top of it (such as might be the case if two instruments were playing the same note) is called a unison. Middle C to D is called a second. Middle C to E is called a third. This process is carried up the staff until you come to the last type of interval, the seventh. An example of a seventh is from middle C to B on the third line of the treble staff. From middle C to the next higher C is called an octave.

To determine the name of an interval, start counting with the lower note and count up to the higher note. It is as simple as that. For example C to D is a second, counting C as one and D as two. C to E is a third, counting C as one, D as two, and E as three. Examine the intervals below:





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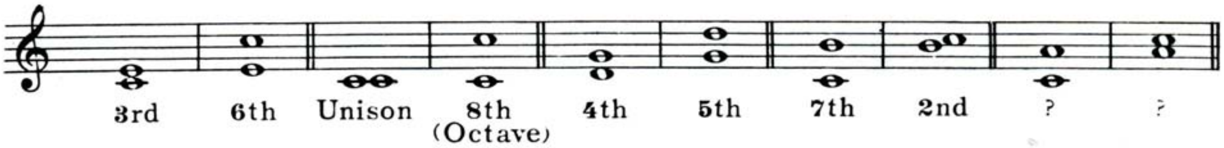
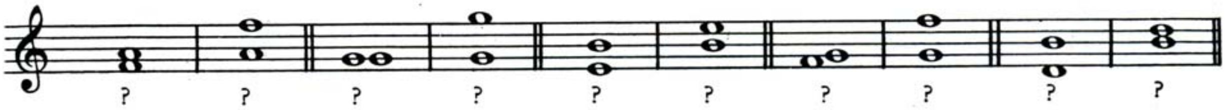
Notice that in numbering the intervals the arabic numbers, 1, 2, 3, 4, 5, 6, and 7, are used.

Inversions

Any interval may be inverted, or turned upside down. To invert an interval just place the lower note above the upper note. For example, suppose you wish to invert the interval of a third formed by E on the first line of the treble staff on top of middle C. Put the C an octave higher, on the third space, and leave E on the first line. You then have a new interval of a sixth with E as the lower note. Observe the intervals below and their inversions. Notice in each case that the sum of an interval and its inversion always equals nine.





The basic intervals are the seven already described and their inversions. However, there are different *kinds* of intervals. These are: perfect, major, minor, augmented, and diminished. They are explained in the table below in the section called ***KNOW YOUR KEYBOARD.***

It is hoped that you have a piano so that you can work out the intervals at the keyboard. This is the practical method. Of course, you can make use of the keyboard chart on page 3, or page 5 of Lesson One if you don't have a piano.

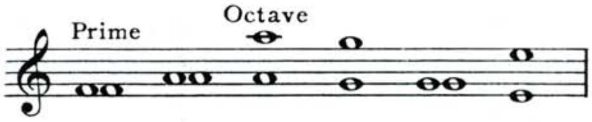
Before you begin to work out these intervals it is necessary that you understand this important fact which is the basis of the tonal systém: the smallest interval is the HALF STEP.

A HALF STEP IS THE DISTANCE FROM ANY PIANO KEY TO THE VERY NEXT PIANO KEY, BLACK OR WHITE, such as from C to C♯ or E to F. A whole step is equal to two half steps.

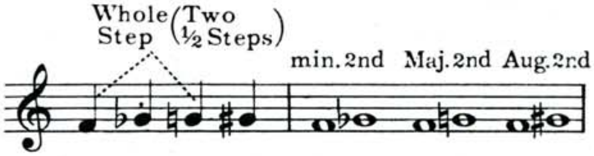
Know Your Keyboard

Work out each interval listed in the table below. Intervals are measured by whole and half steps. The most important intervals are listed with the number of steps in each.

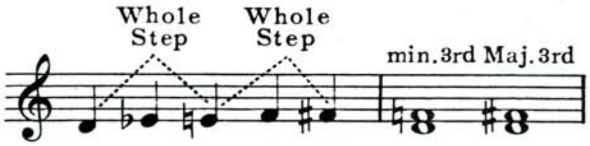
INTERVAL	STEPS
Prime -	same note repeated
Octave -	an inverted Prime



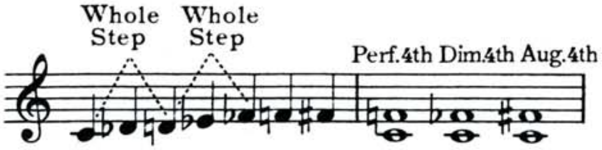
INTERVAL	STEPS
Minor 2nd -	½ step
Major 2nd -	whole step
Augmented 2nd -	whole step plus ½ step



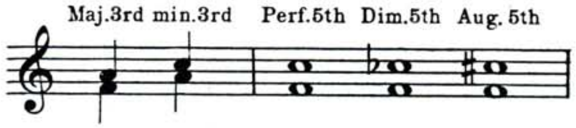
INTERVAL	STEPS
Minor 3rd -	whole step plus ½ step
Major 3rd -	two whole steps



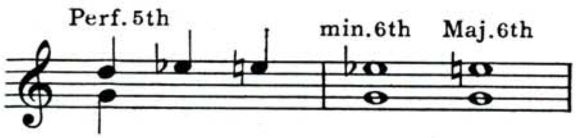
INTERVAL	STEPS
Perfect 4th -	two whole steps plus ½ step.
Diminished 4th -	Perfect 4th less ½ step.
Augmented 4th -	Perfect 4th plus ½ step.



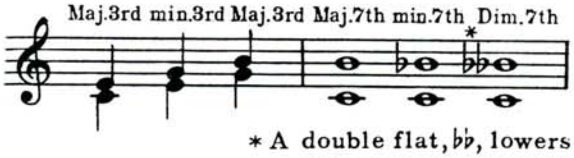
INTERVAL	STEPS
Perfect 5th -	Major 3rd plus Minor 3rd
Diminished 5th -	Perfect 5th less ½ step
Augmented 5th -	Perfect 5th plus ½ step



INTERVAL	STEPS
Minor 6th -	Perfect 5th plus ½ step
Major 6th -	Perfect 5th plus whole step



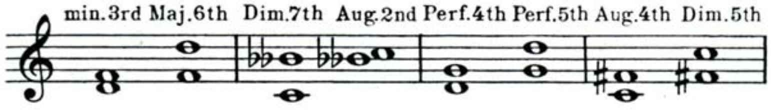
INTERVAL	STEPS
Major 7th -	Maj. 3rd plus Min. 3rd plus Maj. 3rd
Minor 7th -	Major 7th less ½ step
Diminished 7th -	Minor 7th less ½ step



* A double flat, ♭♭, lowers a note two half steps.

When an interval is inverted:

2nds become 7ths and vice versa
3rds become 6ths and vice versa
4ths become 5ths and vice versa
Major beome Minor and vice versa
Aug. become Dim. and vice versa
Perfect *remain* Perfect



(Notice that an interval and its inversion always add up to 9.)

Common Chords

There is a practical reason for learning the basic elements of interval construction. You are learning fundamentals now which will make the later problems of harmony seem logical and easy.

Now you are ready to build chords.

What is a chord?

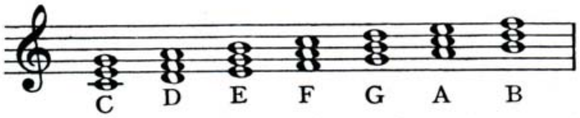
How many chords are there?

The answers to these two questions are very simple. A common chord is a group of three notes piled on top of each other at intervals of thirds. Though there are very many chords, there are only seven basic chords.

To build a common chord take any note and pile two more notes on top of it a third apart. For example, a chord built on C would be C-E-G.

Since there are only seven letter-named notes the only possible basic chords are the ones built on C, D, E, F, G, A, and B. Each chord is named from the note it is built upon. In other words, the basic chords are the C, D, E, F, G, A, and B chords.

These COMMON CHORDS will be used throughout the Course, so look at them carefully and be able to recognize them from now on.



These seven common chords are often referred to as triads.

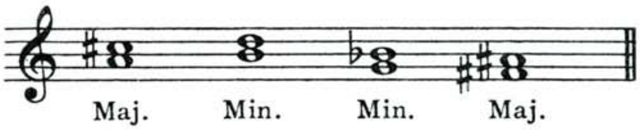
You must understand that harmony is of no value unless you can hear what you have written. After you have written some music you should immediately, if possible, play it, or have it played for you.

Playing Chords at the Piano

(If you do not have a piano, use the keyboard chart.)

Let's build some chords at the piano.

You remember that a common chord is constructed upon a note with two thirds piled on top of it. At the piano you build chords in the same way. You just pile thirds on top of each other, but you have a choice of using either major or minor thirds.

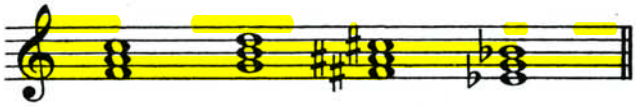


Play a major third with C as the lower note.

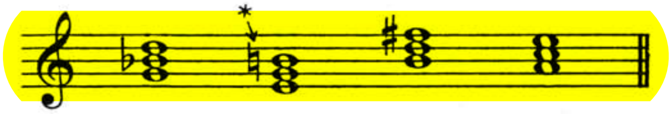
Now, play a minor third on top of this with E as the lower note. Now play the two thirds together, the major third, C to E, and the minor third, from the same E to G. This is a major chord, C-E-G.

Play other major chords. Just play a major third with a minor third on top of it.

Play these and study their construction:

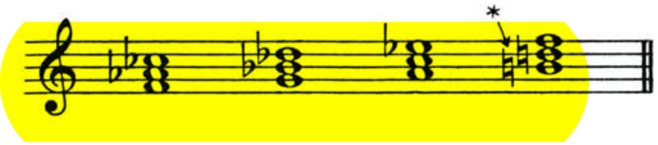


A minor chord consists of a minor third with a major third on top of it, the reverse of the major chord. Construct a few. Build a minor third from any note and pile a major third on top of it. (The second chord in the example below contains a natural sign. It is used to cancel the previous flat, and affects the note only within the measure.)

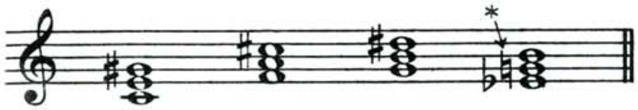


Besides the major and minor chords there are two other types. One is called a diminished chord and the other is called an augmented chord.

A diminished chord consists of two minor thirds on top of each other.



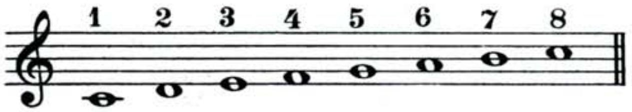
An augmented chord consists of two major thirds on top of each other.



* Natural sign - it is used to cancel the previous flat or sharp and affects the note only within the measure.

Building the Scales

A scale is the tones of any key in succession up or down according to pitch. (The notes of a scale are called degrees and are numbered with Arabic numbers, 1, 2, 3, 4, 5, 6, 7, & 8.)

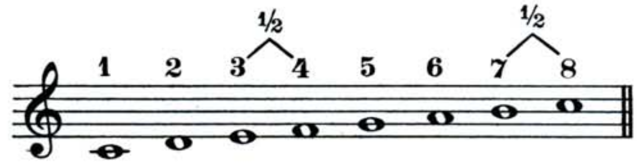


Before you can construct the scales you must first know the major and minor scale patterns. The major scale is composed of whole steps except between the 3rd & 4th and 7th & 8th degrees. These intervals are half steps.

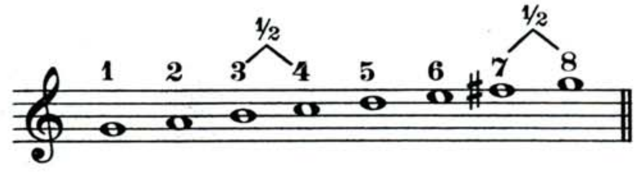
The half steps in the minor scale occur between the 2nd & 3rd, 5th & 6th, and 7th & 8th degrees. The interval between the 6th & 7th notes is a whole step plus a half step (1½ steps). The other intervals in the minor scale are whole steps.

The Major Scales

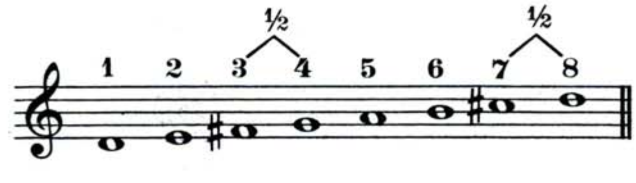
It is very simple to construct a major scale from any note. For example, using C as the first note:



Using G:

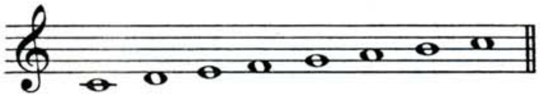


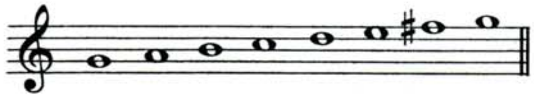
Using D:

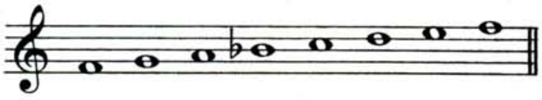


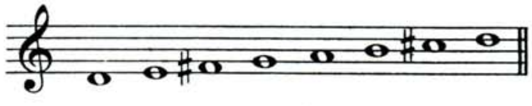
In the same way all the major scales are made. (Observe that a scale, or key, takes its name from the first note.) It isn't necessary to memorize the scales in this Course, but if you know how to construct one, you can make them all.

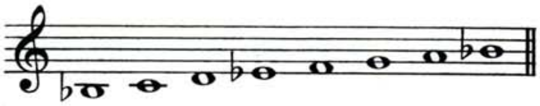
MAJOR SCALES

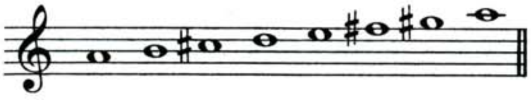
Key of C


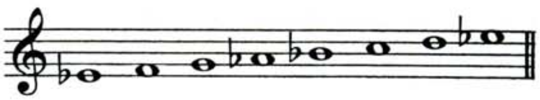
Key of G


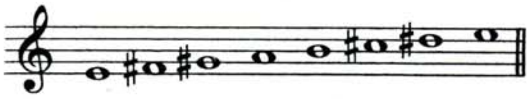
Key of F


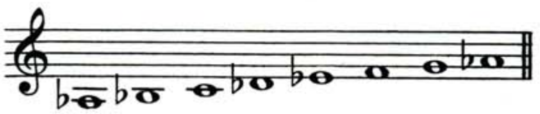
Key of D


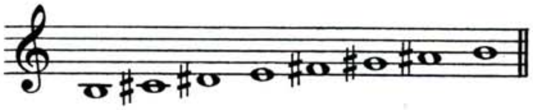
Key of B♭


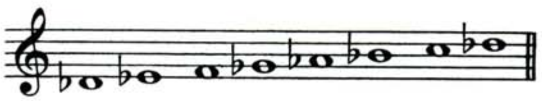
Key of A


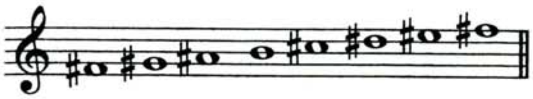
Key of E♭


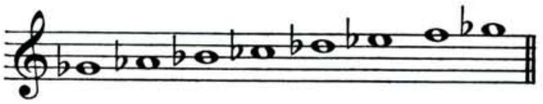
Key of E


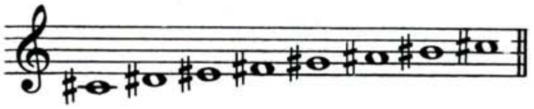
Key of A♭


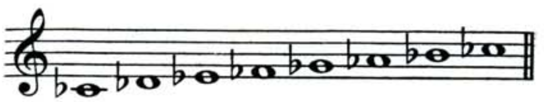
Key of B


Key of D♭


Key of F♯


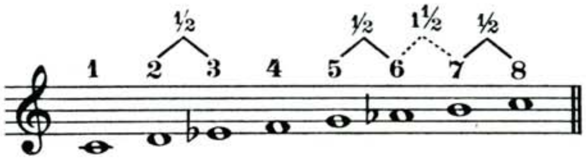
Key of G♭


Key of C♯


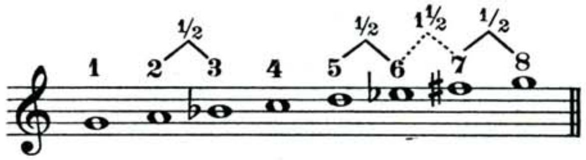
Key of C♭


The Minor Scales

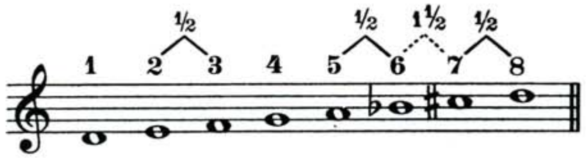
The minor scales are easy to construct, also. For example, using C as the first note:



Using G:



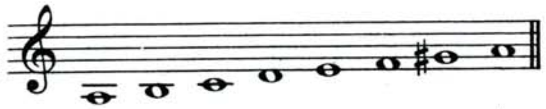
Using D:



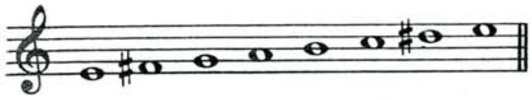
In the same way all the minor scales are made.

MINOR SCALES

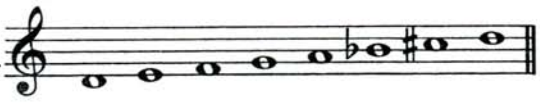
A Minor



E Minor

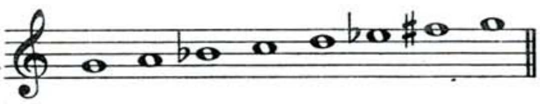


D Minor

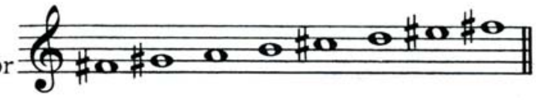


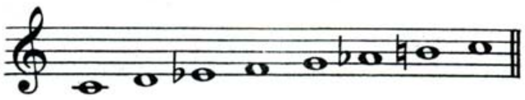
B Minor

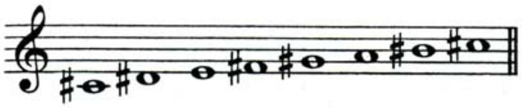
G Minor

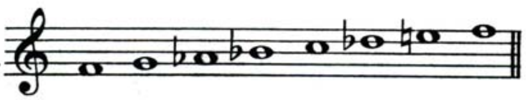


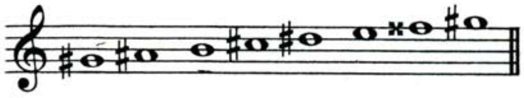
MINOR SCALES (cont.)

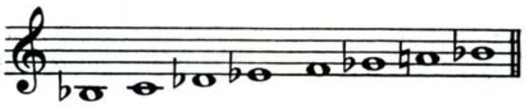
F♯ Minor


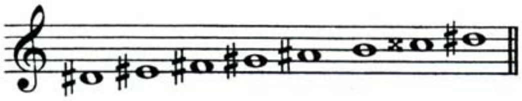
C Minor


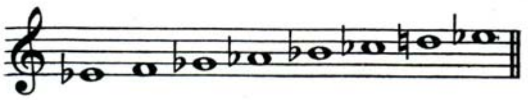
C♯ Minor


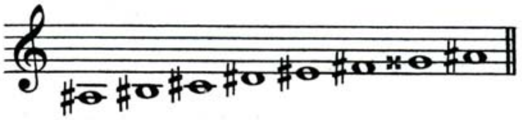
F Minor


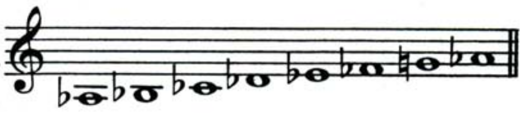
G♯ Minor


B♭ Minor


D♯ Minor


E♭ Minor


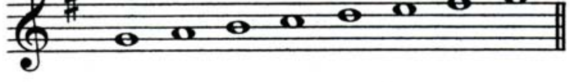
A♯ Minor


A♭ Minor


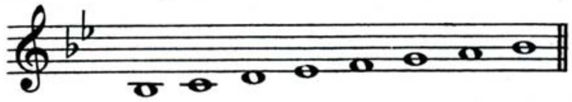
Key Signatures

As you can see it is awkward continually to write sharps and flats in front of the notes. If this were done in every piece of music the labor involved would be immense and music would be difficult to read. Key signatures were invented as a result.

A key signature is the sharps or flats in the scale in which a piece of music is written. The sharps or flats are written at the left of each staff just after the clef sign. For example, when a piece is written in the scale which uses G as the first note there is one sharp used, **F♯**.

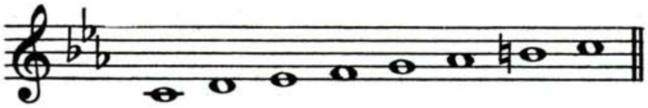


Here is another example—when the scale is built on B flat.



All of the key signatures are listed for you in a key signature table at the end of lesson four.

In the minor scales there is one note that is not in the key signature. This is the seventh note of the scale.



In the above scale the natural sign in front of the seventh note is called an *accidental* because it is not in the key signature. In the MINOR section of the key signature table the accidental for each minor scale is listed beside the key signature.

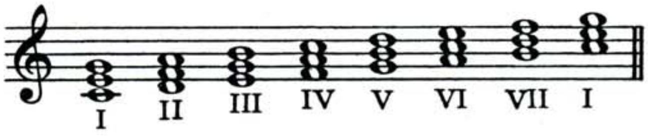
Final Bass Note

We now come to a most important fact in the study of harmony which you should make every effort to understand thoroughly. In every musical composition, the FINAL BASS NOTE of a piece is the KEYNOTE of the entire composition. As you will see later this last bass note determines the relationship of every other note in the piece.

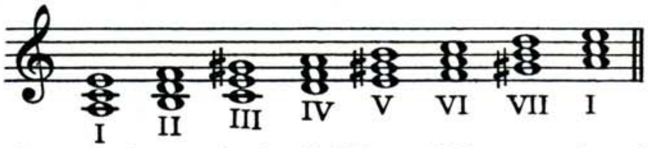
You will notice that THE FINAL BASS NOTE IS THE SAME AS THE FIRST NOTE OF THE SCALE, the harmonic keynote of the piece.

Triads Have Roman Numeral Names

The notes of the scales are sometimes referred to as DEGREES. When the triads are formed on the degrees of the scale roman numerals are used to describe them. For example, here are two groups of chords constructed on two different scales.



MAJOR MINOR CHORD TRIADS

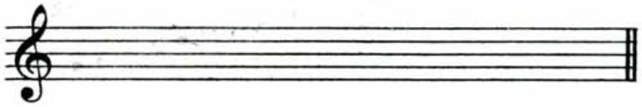


Notice that in a major scale the I, IV, and V are major chords. The II, III, and VI are minor chords. The VII is a diminished chord.

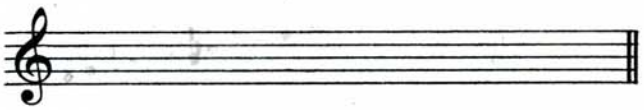
In the minor scale the I and IV are minor chords. The V and VI are major chords. The II and VII are diminished chords. The III is an augmented chord.

WRITING LESSON

1. Write a major scale built on keynote G.

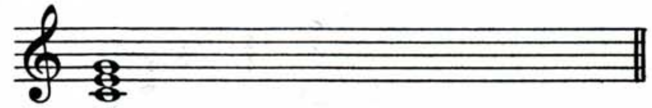


2. Enter the key signature.
3. Write a minor scale built on keynote F.

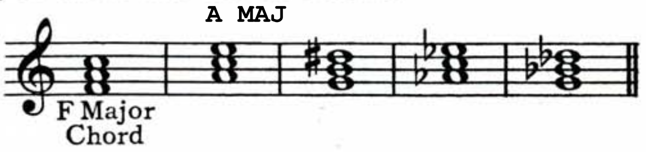


4. The key signature for this scale is four flats. Find this key signature on the right side of the MINOR section of the key signature table. What note is listed as final bass note?
5. Can you name the intervals below?

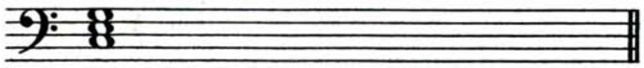
6. Write the seven common chords.



7. Place the Roman numerals under the above chords. This example is in the key of no sharps or flats. The first degree of this scale is C.
8. Can you name the chords below?



9. What interval would be an inversion of a major 3rd?
10. Write the common chords on the bass staff.



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THE BASS LINE

Sometimes people get confused because they get off on little side roads instead of following the main highway. In the preceding lessons a good many points were introduced, and naturally, as a conscientious student, you want to remember everything you study. If you learn the basic ideas then the details will fall into place. Don't overlook the forest for the trees!

Just consider for a moment what you have learned so far. Actually only three broad phases of harmony have concerned you up to this point:

1. In lesson one you learned that music is written on the Great Staff.

2. In lesson two that the study of harmony is largely a matter of knowing seven basic chords, or triads, built on the degrees of the scales.

3. In lesson two you also learned that the FINAL BASS NOTE of a piece is the all-important keynote of harmony.

Don't make the mistake that so many do. Don't underestimate your ability. The human mind has a squirrel-like way of picking up details and storing them in the back of the mind. In fact, all of us have many facts stored in our minds, even though we might think we've forgotten what we've learned at one time or another.

Did you ever meet an old friend you hadn't seen for years and suddenly find yourself talking over old times? Wasn't it remarkable how you remembered even the smallest details about times you had together? Why does the mind work this way? Why could you remember all those incidents you thought forgotten?

Well, it seems when you recall some occasion your mind fills in the details for you. In harmony the same is true. If in each lesson you experience joy from learning a new idea and make sure that you fully understand it, when you get further on into the later lessons and try to remember some detail of an earlier lesson, you need only recall the general principles. Suddenly, all the small points come back to you. So don't feel discouraged if some minute problem disturbs you as long as you understand the basic ideas.

If someone asked you what an interval was, you would recall that it was one note on top of another. When you learned the seven basic chords you had to know intervals first.

There is another point to remember as you learn. The most important part of this Course is the actual exercises that you yourself work out, because by applying the knowledge you gain in each lesson you understand the ideas better. Many musicians can learn rules and facts; but only the ones who can put the rules and facts into practice become composers.

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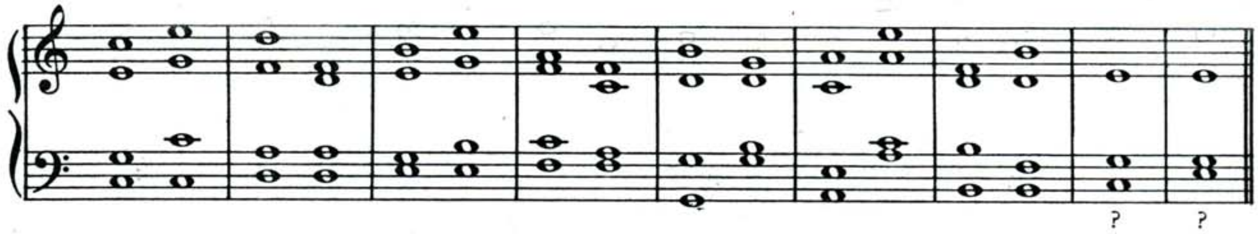
Once you begin to see your own work on paper, you will be fascinated and want to learn all you can. For these reasons the Course will devote itself more to practical writing than to long discussions about involved theory. As you get into the next few lessons you will notice they are a little shorter than these first few. Practically every lesson will present one or two practical rules for you to learn, show you how to use them, and then leave the rest up to you. You will make progress if you actually write music yourself, instead of just reading page after page of theory and discussion.

In this lesson two ideas are presented. Now that you know the seven common chords, you will learn how they are used on the great staff. You will also learn about the bass line in harmony, the importance of the FINAL BASS NOTE being re-emphasized in explaining the TONIC CHORD.

As you know from the last lesson, common chords have only three notes, but harmony consists of four parts, or voices. Therefore, we must double one of the notes in each chord when we harmonize.

What note should we double? The basis of any chord is the bottom note. This note (fundamental) is the strongest note of the chord and is the foundation of the tone structure. If you were building a house and in every four bricks you had one strong one, two weaker ones, and had the choice of another strong brick or another weaker brick for the fourth one, wouldn't you choose the strong brick? Well, the same is true in chord structure.

Therefore, you choose the fundamental to double. Below are the seven basic chords on the great staff. This is the way they will be used in four part harmony. DOUBLE THE NAME-NOTE, OR FUNDAMENTAL, OF THE CHORD.

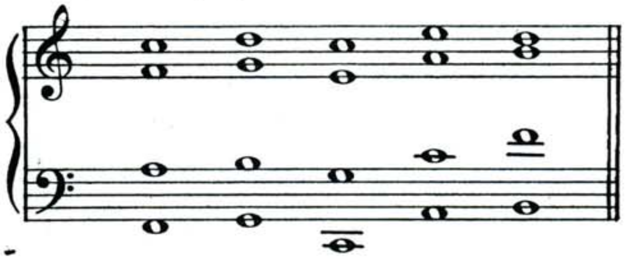


If four people wanted to have a discussion they would certainly sound foolish if they went to a large auditorium and each took his seat at the opposite corners of the building, and tried to carry on a conversation. Music would certainly sound foolish too, if the soprano were far out of range of the alto, the alto out of range of the tenor, and the tenor out of range of the bass.

So, notice that all four notes of each chord are fairly close to each other. Any note of a chord should be at least within an octave range of the note above or below it. Occasionally the bass will be more than an octave away from the tenor, but this is the only exception, and

in most cases it is good practice to keep all voices compact and close to each other.

The bass can be more than an octave away from the tenor occasionally because the bass is the strongest voice and *sounds out*. Note the examples below and play them.



The most important line is the bass. What the bass does determines what the other voices do. As the bass moves horizontally from note to note in a piece of music the upper voices have definite progressions determined by what the bass does. Many students think that the melody (soprano) is the most important line. Harmonically this is not true. In four part voice writing melody grows out of the harmonic structure, and the bass line determines the harmonic structure.

Eventually you will be able to harmonize melodies, but it would be impossible if fixed bass rules were not made clear to you. From now on you will be dealing with the bass line and the laws that govern the upper voices when the bass moves in this direction or that.

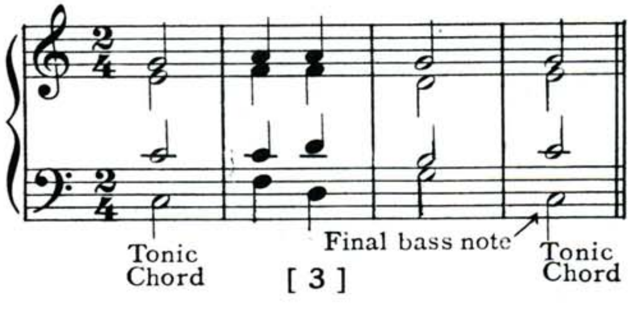
These laws will be presented very slowly and carefully. Just bear in mind that the bass line is always your first concern. Learn from the beginning to work from the bass.

As you know, the FINAL BASS NOTE is very important. It stands to reason that the chord built on this note is the most important in a composition. This chord is called the TONIC CHORD.

This TONIC CHORD determines the importance of every other chord in a piece of music. In succeeding lessons you will learn the relative importance of the other chords.

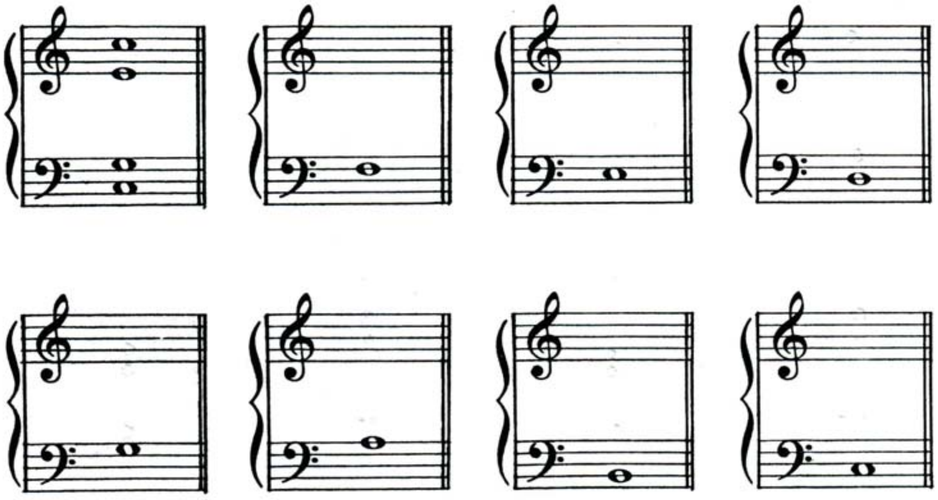
Always remember the TONIC CHORD is built on the FINAL BASS NOTE.

Once you understand the method in which the relative importance of all chords is determined from the FINAL BASS NOTE and the TONIC CHORD you will begin to learn the rules that govern the movement of the tones in the bass line.

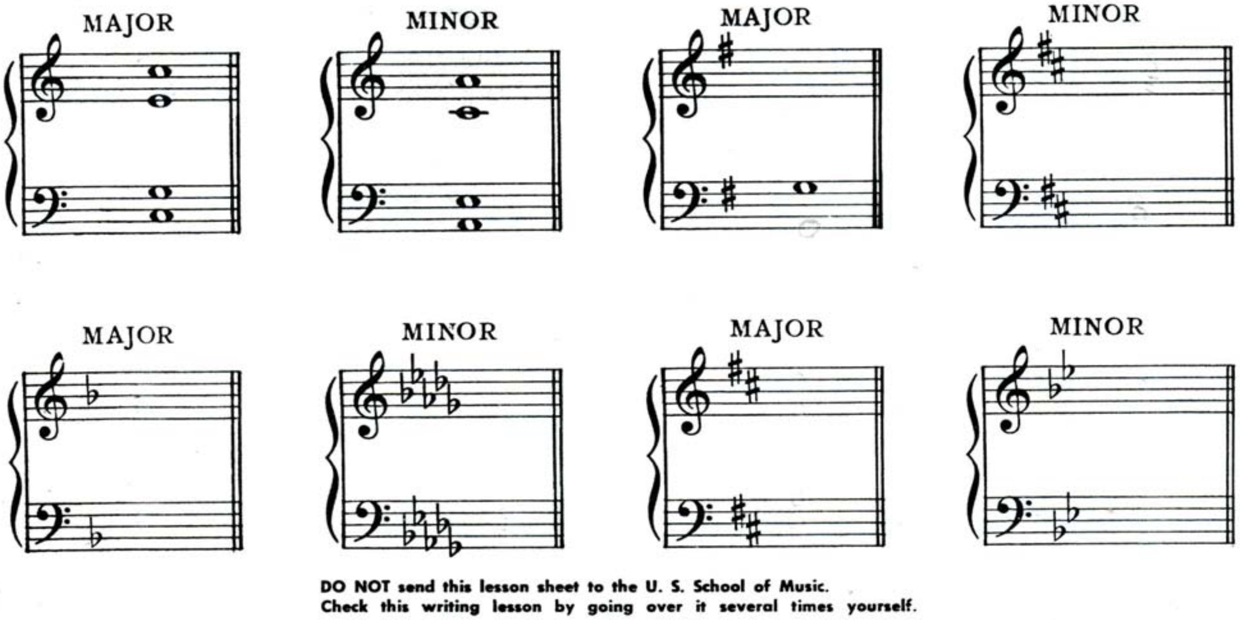


WRITING LESSON

1. Write a common chord on each of the following bass notes. Double the fundamental in each case.



2. Write the tonic chord for each key signature below. (Use the key signature table to determine the final bass note in each case.)



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Check this writing lesson by going over it several times yourself.

THE KEY SIGNATURE TABLE

(See Harmony Manual at the end of this lesson. Part 1 only to be used until later lessons.)

Music is like a road through beautiful country, and the composer is the road builder. Although there are many harmonic roads, they are all constructed in the same way, the only difference being their destinations. In other words, the progressions of one chord into another are treated the same in every piece, but one composition might end on a C chord, while another might end on a G chord, for example. The final chord, or tonic, is the feature that makes one piece different than another.

The key signature is the signpost that tells the composer which road he is traveling and its destination, or tonic chord.

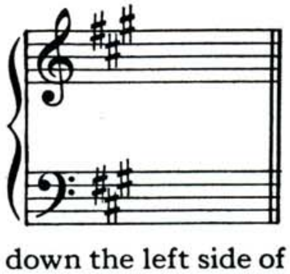
THE KEY SIGNATURE TABLE shows you the final bass note for any possible key signature. To a pianist a key signature indicates that certain notes are sharp or flat. For example, the second key signature down on the left side of the KEY SIGNATURE TABLE shows that F must be played sharp throughout the piece.

To you, the composer, the key signature also tells the final bass note. Then, once you know the final bass note, you can go ahead with your harmonization.

So, keep in mind that, harmonically, the important fact about the key signature table is that *it tells you the final bass note.*

The first thing you notice is that the key signature table is divided into two main sections under the headings, MAJOR and MINOR. Under each of these headings are listed the key signatures, or signposts, including all the possible keys. On the left is the key signature of no sharps or flats and all the sharp keys. On the right are all the flat keys.

Now, suppose you want to harmonize a bass line or a melody (as you will do later) and you wish to know the final bass note before you start your harmonization. Let's imagine the key signature of the bass or melody you are to harmonize looks like this:



Since it is a sharp key you know you must look down the left side of the key signature table to find the proper key signature. So, you look first under the MAJOR section to see if it is listed there. Counting down to the fourth one you see that it is the same as the key signature of the above illustration.

The treble staff is listed first with the three sharps after it on the

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proper lines and spaces. The bass staff is right next to it with the sharps on the proper lines and spaces in this staff. Next to this is the final bass note, A. So you know that the tonic chord in this key is the A major chord. In Lesson Two you learned that the chord built on the major keynote is a major chord.

Now, look under the MINOR section. Find the same signature, three sharps. Notice that in this case the final bass note is F sharp, so that the tonic chord in minor is the F sharp minor chord. The chord built on the minor keynote is a minor chord.

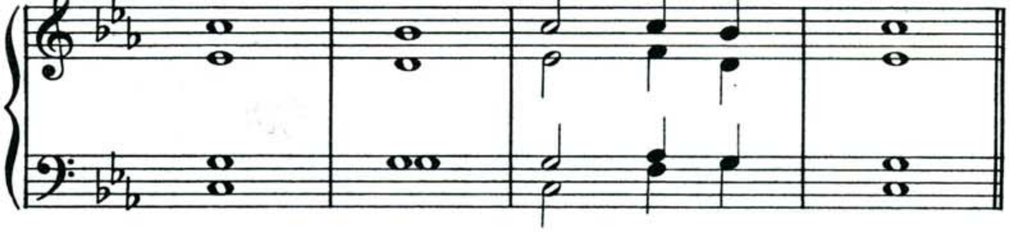
If you study the key signature table a little more, you will see that the same keys are listed under MAJOR as MINOR. The only difference in the two sections is that the final bass notes are different. In other words each key signature has a MAJOR final bass note and a MINOR final bass note.

Whether you are to use the MAJOR or MINOR you will learn later when you begin actually to work out harmony. At this point it is only important that you understand how to find the major and minor final bass notes for any key signature.

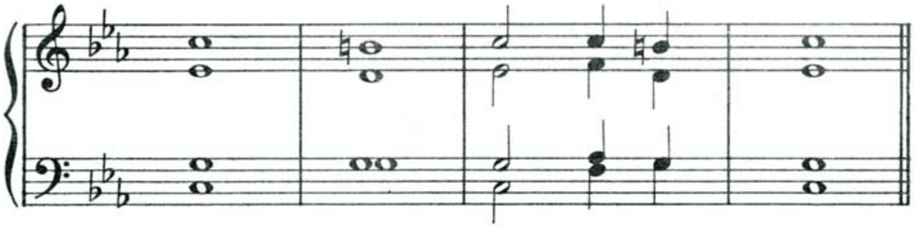
In every minor key there is one note that must be chromatically changed so that the music will sound right according to our modern tonal system. So, for each minor key signature the note that must be changed is printed beside the key signature. (This note is the seventh note of the scale, as you learned in lesson two.)

This will not affect the way you go about your harmonizations, however. You will do major and minor harmonization in exactly the same way.

After you have finished a minor harmonization, though, you must go through the harmonization and change every one of the indicated notes. For example, suppose you have harmonized the example below. From the key signature and final bass note you can tell that it is in a minor key. However, when you harmonize it you do it as though it were just another harmonization, whether major or minor making no difference.



Now that the harmonization is complete you must go through and change all the B's by placing a natural sign in front of them. Otherwise they would be mistaken for B♭'s.



If you look at the MINOR section of the key signature table you will see B natural listed beside the key of three flats. So, you can now understand exactly why and how we go about making the above change.

The natural sign, the flat, and the sharp are called accidentals when they do not appear in the key signature. The B natural in the above example is called an accidental, since B flat is in the key signature and *not* B natural. The effect of an accidental is good for only one measure. Notice the B natural was indicated both in the 2nd and 3rd measures.

By using the key signature table you need only keep two things in mind:

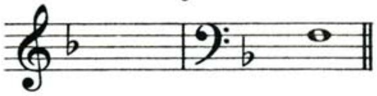
1. You must be aware of which is the tonic chord.
2. In a MINOR key you must remember which note has to be chromatically raised after you've completed a harmonization.

It will certainly be much easier for you to remember the two points above than to memorize thirty scales.

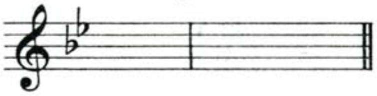
WRITING LESSON

1. For each key signature in the treble clef draw a bass clef key signature, and final bass note. When the example is in MINOR write the note which must be changed when you compose music in that key.

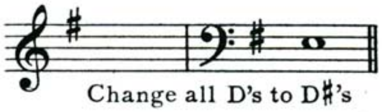
MAJOR



MAJOR

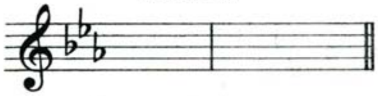


MINOR

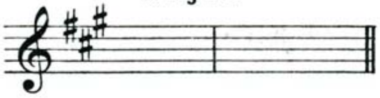


Change all D's to D♯'s

MINOR

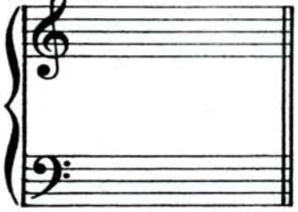


MAJOR

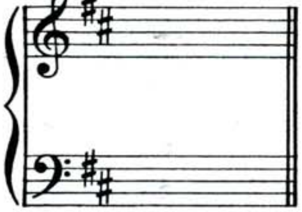


2. Write the tonic chord for each key signature.

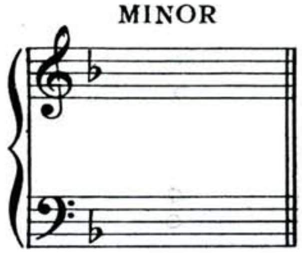
MAJOR



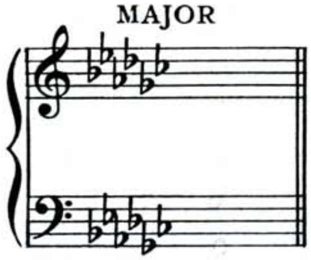
MINOR



MINOR

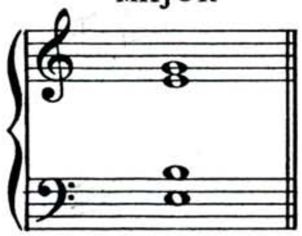


MAJOR

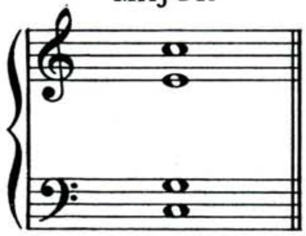


3. Write the key signatures for the tonic chords. (Find the final bass note in the key signature table.)

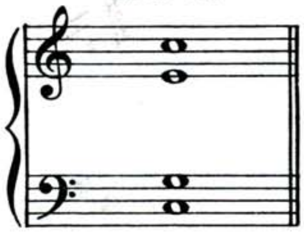
MAJOR



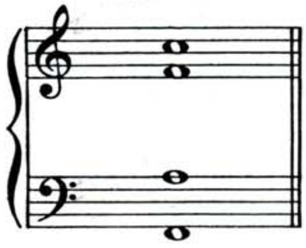
MAJOR



MINOR



MINOR



4. If a piece is in a minor key and all E♭s must be changed to E♮s, what is the key signature?

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HARMONY MANUAL

REVIEW

Since the beginning of the Course you have learned many musical facts and have covered the first steps toward your goal of mastering the problems of Harmony. It is hoped you have had little or no difficulty in grasping the material so far. If anything, you've probably realized by now that harmony isn't so difficult.

Just to make sure that you haven't missed anything let's review what we've learned so that there will be no possibility of doubt with the work to be covered in the next few lessons. It never hurts to review. Haven't you found this true in other things besides harmony? If you are a farmer, isn't it a good idea to review in your mind what happened to a certain crop over a period of years so that you can tell whether you have been losing or gaining with your crop results?

Testing all kinds of wheat in experimental fields over a period of years has developed strong varieties of wheat able to withstand blight. You can apply this same scientific method to your study of harmony and develop a sturdy breed of chords.

It is very important that you understand the steps in these first few lessons so if this review points out something to you that you don't quite understand, go back to the material and read it through again.

First, you learned these basic rudiments of music: the world of tone is written on the Great Staff which we called the "music map." The center of all tones is middle C, the note on the imaginary line between the upper and lower staffs that compose the great staff. Each line and space has a letter name. The letters of the musical aphabet are A, B, C, D, E, F, and G.

After learning the great staff you found out how to use leger lines to indicate notes above or below the staff.

Flats and sharps were introduced, and you discovered how the black keys on the piano were written on the great staff. You also learned that some sharps and flats do *not* indicate black keys on the piano, namely, E sharp means the same thing as F; F flat means E; B sharp means C; C flat means B. Finally, you learned that a double sharp (X) raises a tone one full step, the same as two half steps. Also review the double flat (♭♭).

Next, the time values of the notes were presented. Do you remember all the values for the different notes, like the whole note, the half note, the quarter note, etc.?

Do you understand the use of the tie and the use of the dot? Then we covered rhythm — the number of beats in a measure and time signatures. Are you sure you understand the various time signatures such as 2/4, 4/4, 3/4, 3/8, 6/8, etc. and how to beat time for any time signature?

(*Continued on Lesson 5 page 8*)

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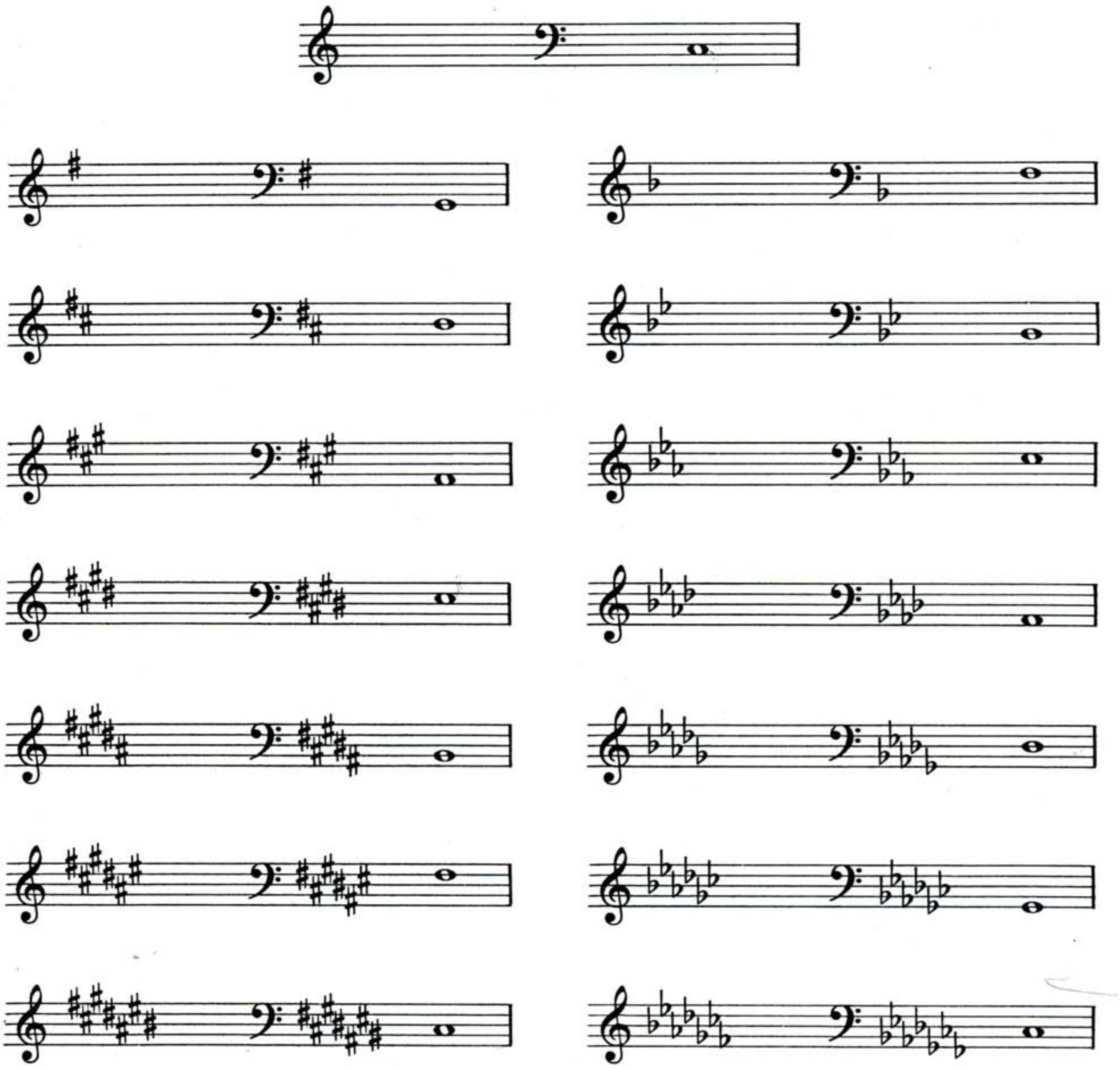
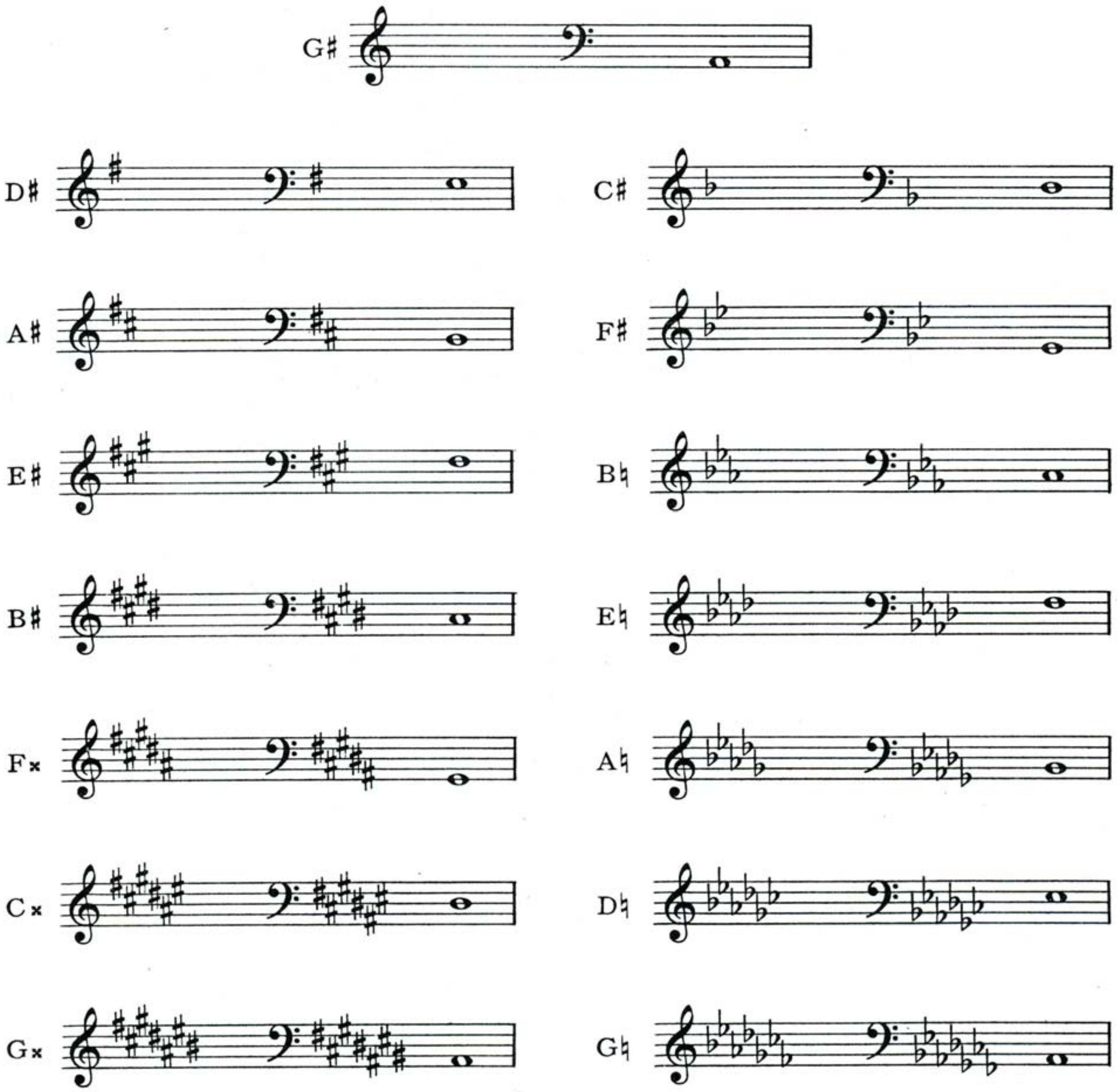
KEY SIGNATURE TABLE

MAJOR



KEY SIGNATURE TABLE

MINOR



Harmony Manual—Part 2

Progression Summary

When the bass moves a:

5th . . . Hold common tone. Remaining voices contrary to bass.

**4th . . . Hold common tone. Remaining voices with bass—or—
Three upper voices against bass.**

3rd . . . Hold common tones. Other voice contrary to bass.

2nd . . . Upper voices contrary to bass.

Harmony Manual—Part 2

Progression Summary (cont.)

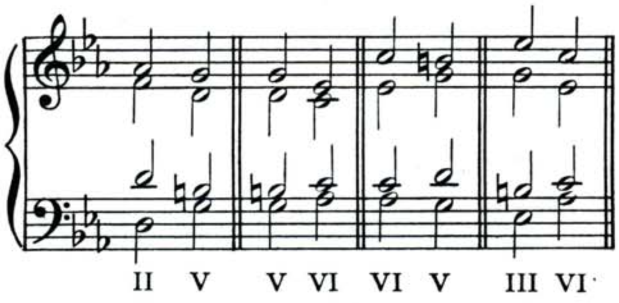
II to V in minor . . . Upper voices contrary to bass.

In these progressions the third is always doubled in the VI:

V to VI . . . 3rd of V moves with bass. Other voices contrary to bass.

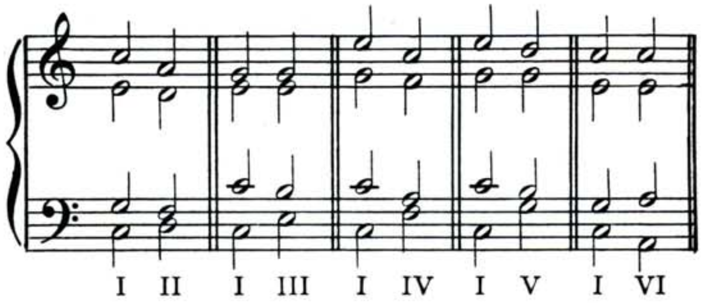
VI to V . . . Doubled 3rd moves in opposite directions. Other voice contrary to bass.

III to VI in minor . . . 5th of III moves up. Other voices down.



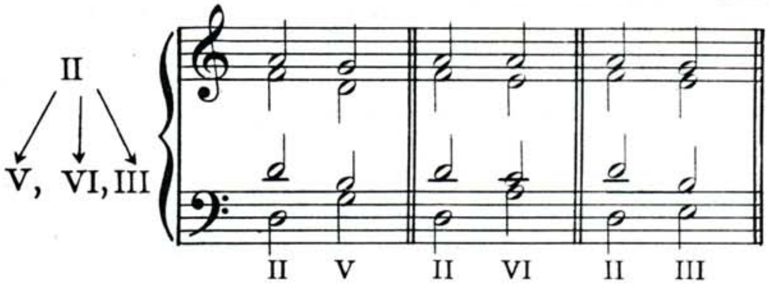
STRONGEST PROGRESSIONS FROM ANY CHORD

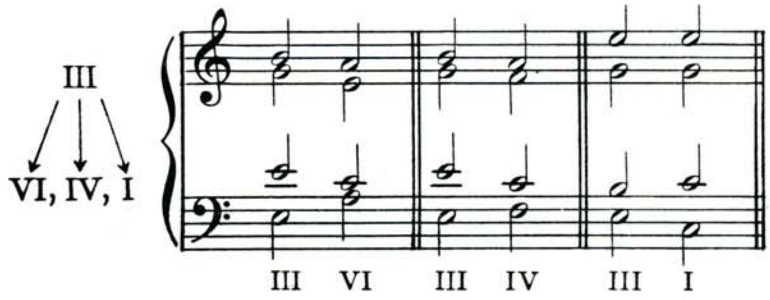
Chord	Will progress to:
I	Any chord.

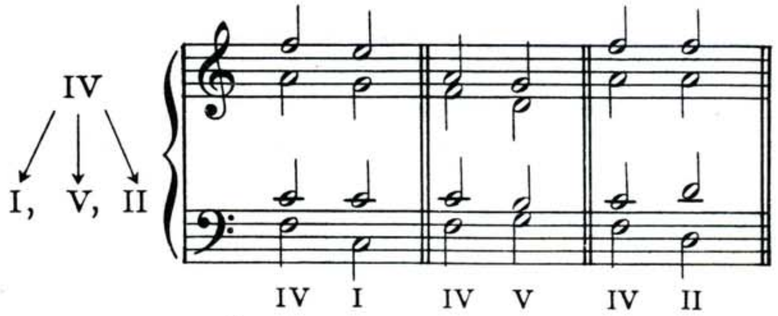


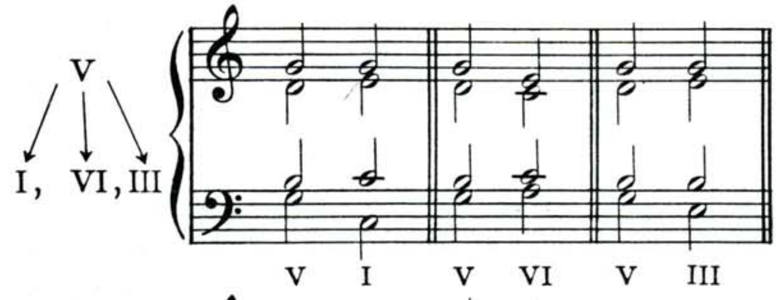
Harmony Manual—Part 2

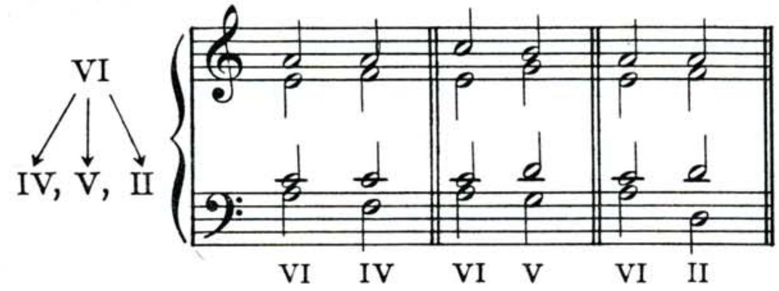
STRONGEST PROGRESSIONS FROM ANY CHORD











Harmony Manual—Part 3

Working Plan

Harmonizing a bass—In order to harmonize any bass part, first determine the Final Bass Note and Tonic chord by using the Key Signature Table. Then harmonize the bass by following the movement of the bass and applying the progression rules you have learned. If the music is minor be sure to change the proper note throughout as indicated in the Key Signature Table.

Harmonization of Melodies

1. Understand thoroughly the proper voice leadings for all bass progressions.
2. Know the strongest progressions from any chord.
3. List the possible chords under each bass note. Harmonize from chord to chord, and ask these two questions as you go along:

   A. Am I using a good bass progression?

   B. With the bass progression used can I move the melody note correctly?

Doubling and better voice leading

Sometimes to insure better work musically a composer can double the third in secondary chords. The primary chords always double
(II, III, & VI) (I, IV, & V)
the fundamental.

Checking your work

First check for wrong doubling.
Secondly check the alto and tenor lines for smooth voice leading. If these voices leap more than a third there is probably a faulty progression.

If you remember, the first lesson ended with a discussion about looking at harmony horizontally and vertically. This is important. It will do you good at any time to read over this discussion.

It is also important that you have a clear idea of your main road. The details will take care of themselves. So, instead of making a detailed review of the rest of the material in the first four lessons, glance over the main points listed below. If you are still in doubt about any of these points, go back immediately and study whatever confuses you until you completely understand it. Here are the important points to keep in mind:

1. There are seven basic intervals.
2. The FINAL BASS NOTE is the keynote of harmony.
3. There are seven basic chords. They are named after the first seven letters of the alphabet.
4. There are seven degrees in the scale. The triads are built on them, and they are numbered with Roman numerals.
5. Chords are used, on the Great Staff by doubling the fundamental, or name-note, of the chord.
6. Soprano, alto, tenor, and bass should be kept an octave or less apart. Occasionally the distance between the tenor and bass is more than an octave.
7. The TONIC CHORD is the most important chord in harmony. This chord is built on the FINAL BASS NOTE.
8. The Key Signature Table tells you the final bass note for any key signature.

So far this territory has been covered by the Course. Again make sure you understand your way perfectly.

It might be wise to review the keyboard harmony practice that you did in lesson two. Play these exercises over and over again so that you learn to *hear* and recognize harmony as well as *write* it.

The biggest time saver in harmony for you will be the Key Signature Table. Look it over again and remind yourself that its prime purpose is to point out the Final Bass Note in any Key.

If at this point you are positive you have grasped the main ideas, roll up your sleeves again, grab a pencil and some music paper, and go on to the next Lesson.

MODERN HARMONY EXAMINATION #1 Covering Lessons 1-5) A

Send the completed examination to the U.S. School of Music, Port Washington, N. Y. *The corrected exam will be returned to you.*

Name JAMES HILL Instrument GUITAR

~~Street or~~ Box 18 School Key No. H-7-11-62

City HARRISVILLE State NEW YORK

(Answer in this Space)

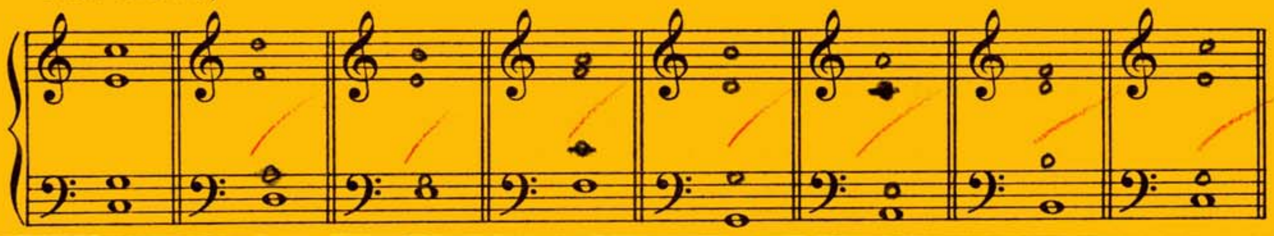
1. Name the letters of the alphabet of music. — A, B, C, D, E, F, & G
2. What is the smallest interval in music? — half step
3. What are the short lines called on which notes above and below the staff are written? — leger lines
4. The combination of upper and lower staffs is called — Great Staff
5. The upper number of the time signature tells how many ________ in a measure. — beats
6. How many common chords are there? — seven
7. What kind of a chord is a minor third with a major third on top of it? — minor chord
8. Which note is doubled in chords used in four part harmony? — fundamental note
9. Which is the most important voice in four part writing? — bass
10. What do you call the chord built on the final bass note? — Tonic chord
11. The lower number of the time signature tells what kind of a note gets ________. — one beat
12. A double flat lowers a note 1/2 step. True or false? — false (whole step)
13. Four part harmony may be understood vertically as well as horizontally. True or false? — true
14. An augmented chord consists of a major third plus a minor third. True or false? — false (2 majors)
15. An inverted third would be a ________. — sixth

WRITING EXAMINATION #1 (Lessons 1-5)

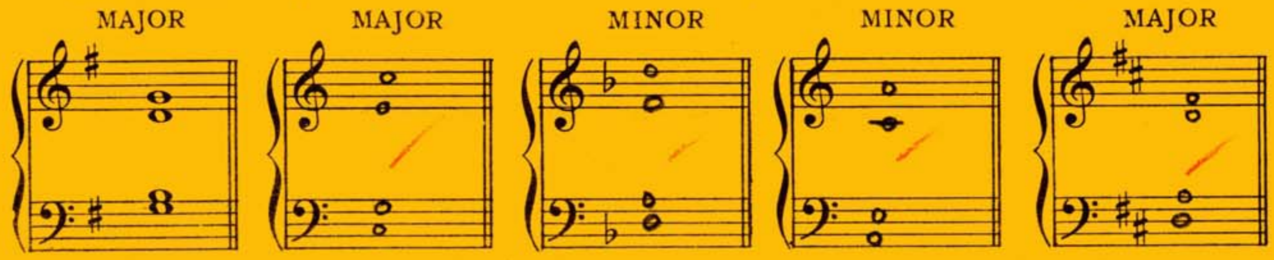
1. Write the seven common chords on the treble staff.

2. Write the seven common chords on the bass staff.

3. Write a common chord on each of the following bass notes. *(Double fundamental in each chord.)*



4. Write the tonic chord for each key signature below. *(Use the key signature table to determine the final bass note in each case.)*



5. For each key signature in the treble clef draw a bass clef signature, and final bass note. When the example is in minor write the note which must be changed when you compose music in that key.

Note: This examination will be corrected and returned to you. We are interested in your continued progress. Keep us informed. When asking for information on any part of a lesson, please mention lesson number and page and paragraph referred to.

GETTING ACQUAINTED WITH CHORDS

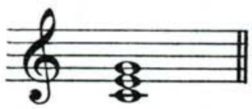
Music is a tone highway and the composer the road builder. But music not only seems to travel and finally arrive at some destination; it also seems to be saying something at the same time. Music is called the universal language. This can be taken literally. Every language is made up of words that must be learned and understood before ideas can be expressed. Likewise music is made up of chords that must be learned and understood before musical thoughts can be expressed.

In learning harmony it is not expected that a student should quickly write long compositions such as sonatas, etudes, songs and symphonies. Instead he is first taught how to deal properly with short sections of music involving simple problems. It would be futile to attempt to compose large works until much time had been spent working on the basic laws of harmony which all great composers have studied. Just as it would be useless for you to try to write a novel until you had learned words and how to put these words into sentences, so it would be useless for you to try to write a composition for the piano until you had learned chords and phrases, and how to put these elements together into musical sentences.

Seven basic chords are used in harmony. You might think this a limited vocabulary for a composer, but the fact that each chord can be used in many different ways is evidence enough to prove that our musical vocabulary is in reality quite adequate. Consider for a moment that each chord can be a tonic chord. The tonic has an entirely different meaning in a musical sentence than any of the other chords. Furthermore, as you will see in the next few lessons, each chord in any key has its own special meaning, and there are thirty different keys.

Just as a writer should know every meaning of a word, or at least attempt to know the most important uses of it, so you, the writer of music, should know as much about each chord as you possibly can. Learning about these chords will be largely a matter of figuring out the structure of chords by actually writing a few in every possible form they can take on the great staff. One or two will be described for you and you will see the different ways one chord may be written. After this short discussion, go to the end of the lesson and do each example until you understand perfectly the seven basic chords insofar as their structure on the great staff is concerned.

Let's look at the C chord in its basic form, as a three note chord on the treble staff.



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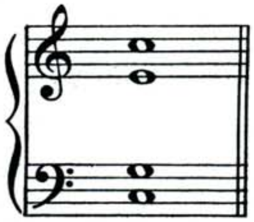
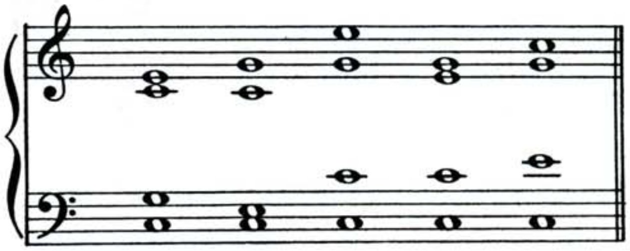
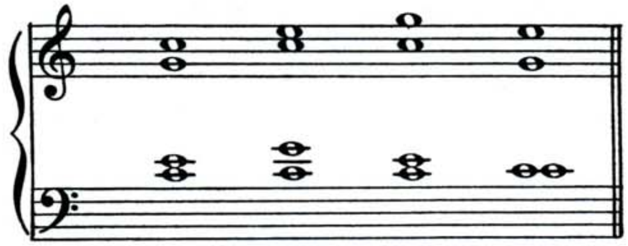
To use this chord in harmony we must make it a four note chord by doubling the *strong note* or fundamental, in this case, note C.



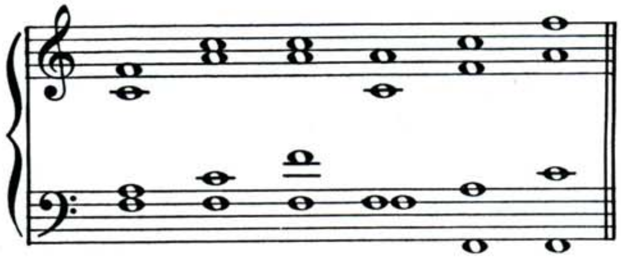
This is only one structure of the chord. Look at these other examples.



In the above examples the lowest note, C, in the bass remained the same. Study these further possibilities of chord structure when the lowest note, C, is placed an octave higher.



Now, study these examples of the F chord.

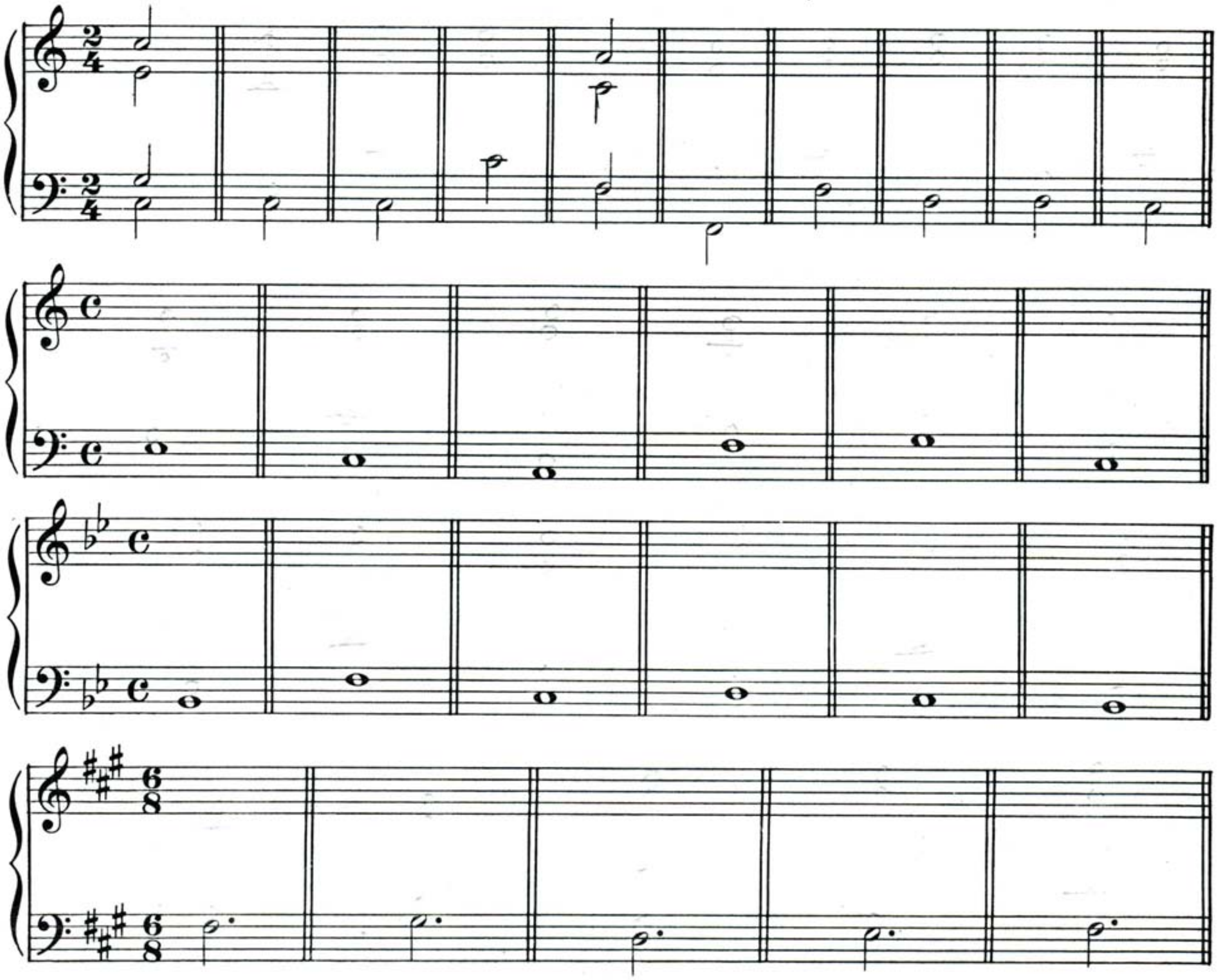


Remember the fundamental, or name-note, of the chord is doubled. Also keep in mind that the space between any two notes of a chord, except occasionally between the tenor and bass, should never be more than an octave.

If these two rules above are respected, your writing will be strong and compact. If you double the wrong note your music will sound weak. If you *spread* the voices your work will sound *scattered*. These important facts in writing were discovered centuries ago when composers chiefly wrote for choirs or choruses. It took years of painstaking toil for scholars to determine the simple rules of music which you learn so easily today.

WRITING LESSON

1. Write a chord on each bass note. Double the fundamental in each case.



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THREE STRONG CHORDS

Have you ever been amazed at the unusual natural musical ability of some person? Perhaps you know such a gifted person. These talented musicians have a natural harmonic sense. They play a simple melody, and add the proper chords to it without any previous preparation, as though they were picking the chords from the air. Have you ever wondered how they do it?

It is true that a musician with an ear for music has very little trouble improvising at the piano because of his in-born sense of harmony, but this doesn't mean that others not so gifted will be unable to develop similar talent. This Course does not intend to teach piano improvisation, but you will be helped immensely in the principles of improvisation by your understanding of harmony.

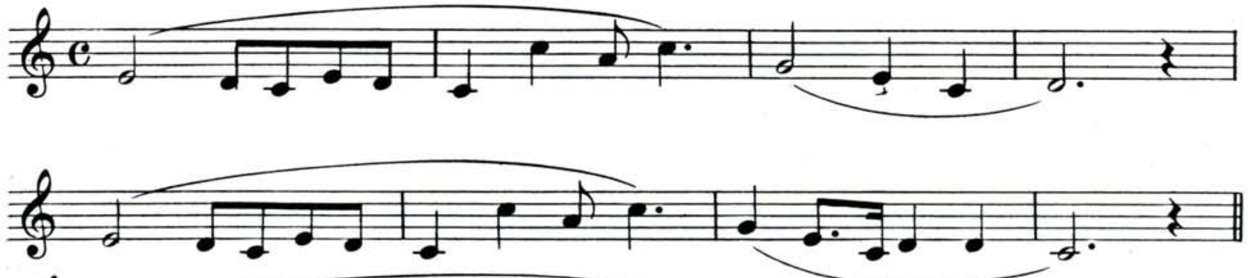
Let's try an experiment. First, think of some familiar melody. Don't choose a complicated one, but think of a simple tune like *Old Folks At Home* or *Home on the Range.*

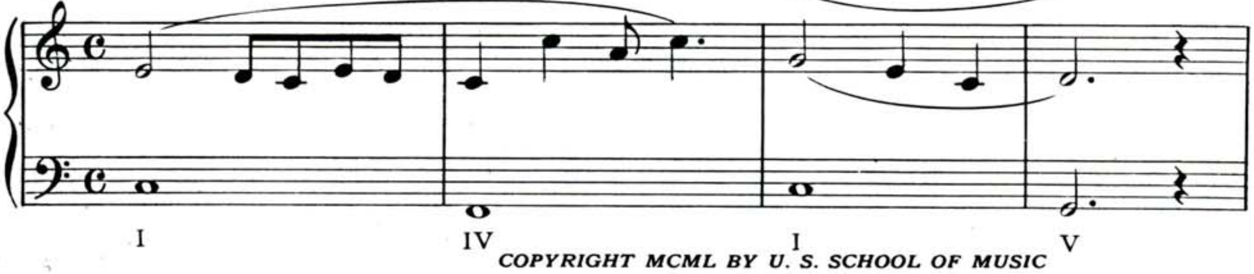
Suppose you choose *Old Folks at Home.*

Try to play this melody using only white keys. Don't get a song book and look up the music. Try to play it without music. You may not succeed the first time, but keep at it until you can play the melody on the piano using only white keys. Here's a hint—the first note will be E on the first line of the treble clef.

This melody is written below for you, but do not cheat yourself out of the fun of this experiment by looking at the notes until you have tried several times to play it by ear.

Now, look at the melody to see how close you came to playing it correctly. The long, curved lines over the several groups of notes are called slurs. Their purpose is to combine separate notes into phrases. A phrase is a musical sentence.





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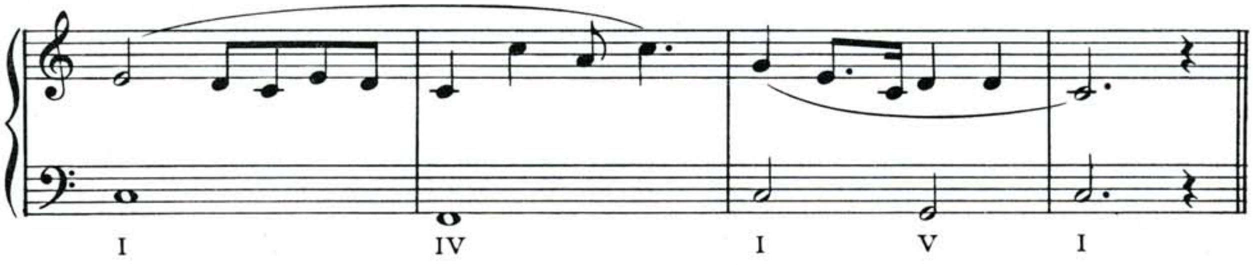
Now, reading the music, play the melody a few times. After you are sure of the right hand, play the melody as written below, and also use the left hand for the notes in the bass clef. Notice that you need only one finger for each part. You don't have to be a pianist to play this tune, so don't worry about playing it perfectly; the purpose is to show you a law of harmony.



Now, look at the bass part only. Throughout the entire tune only three different notes are used in the bass: C, F, and G.

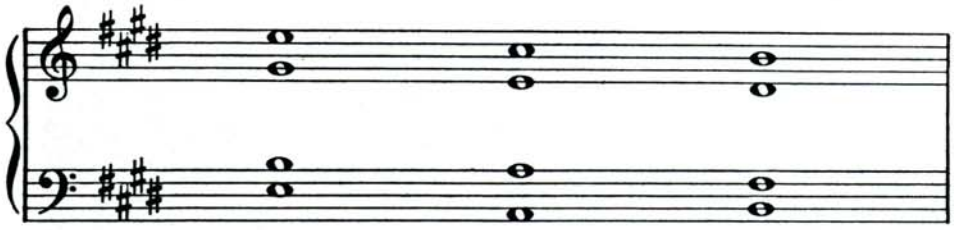
Think a moment. What degrees do the notes C, F, and G represent? You remember that the final bass note is always tonic, or first degree, so the first degree in this piece is C. Then, F is the fourth degree, and G is the fifth degree.

From the experiment above you learned that a melody can be harmonized using only the I, IV, and V chords. If you had just a little more facility at the keyboard you could easily fill in other notes in the above piece, by using the notes that make up the chords built on these same degrees.

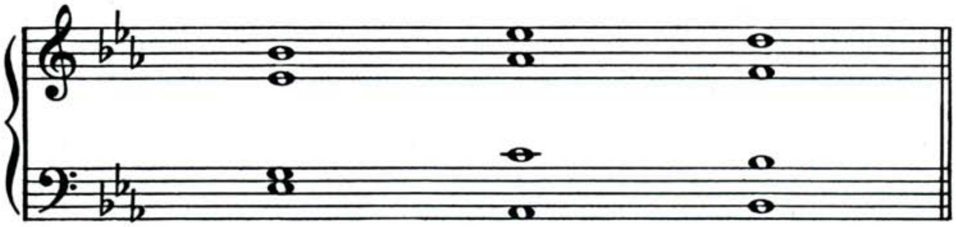
For your own amusement attempt the same experiment with other simple tunes. Use this formula: play the tune several times, determine the final bass note, then, figure out which notes represent the I, IV, and V chords. Play the melody, using one of the degrees, or bottom note of a chord, for each measure. (If you can – use full chords.) Sometimes you will need to use two of the degrees in a measure, but there are many simple melodies that need only one degree per measure. Let your ear determine which to use. Try one chord, then another, until you *hear* the right one for each measure.

The chords built on the first, fourth and fifth degrees are the strong chords of the key, and it is important that you be able to tell which notes represent these degrees no matter what the keynote of the particular key may be. Sometimes the strong chords are called primary chords.

Suppose the final bass note of a piece is E. The tonic chord is the E chord. You can also call it the I chord. Then by counting from E up to A you find that the IV chord would be the A chord, and the V chord would be the B chord.



I IV V



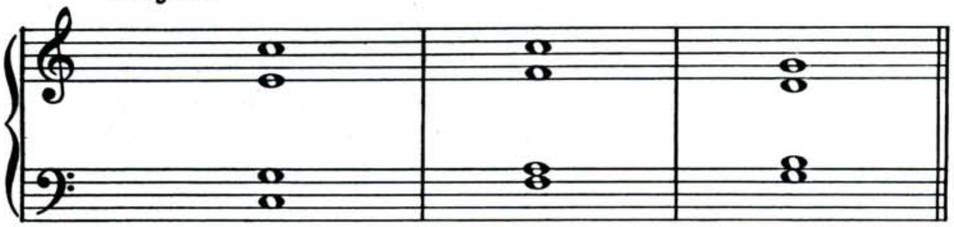
I IV V

Notice that these same triads (common chords) are used in different key signatures.

WRITING LESSON

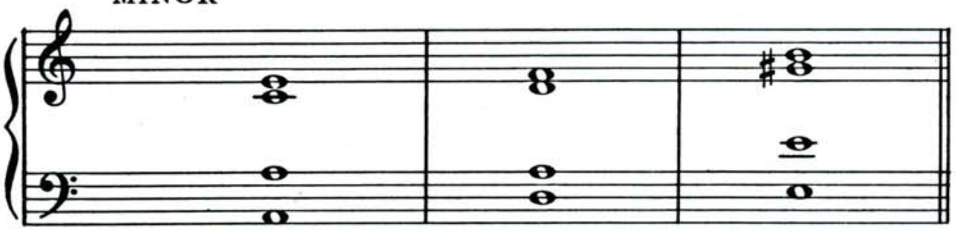
1. Write the I, IV, and V chords in each of the following keys. (In minor the V chord has an accidental, why?)

MAJOR

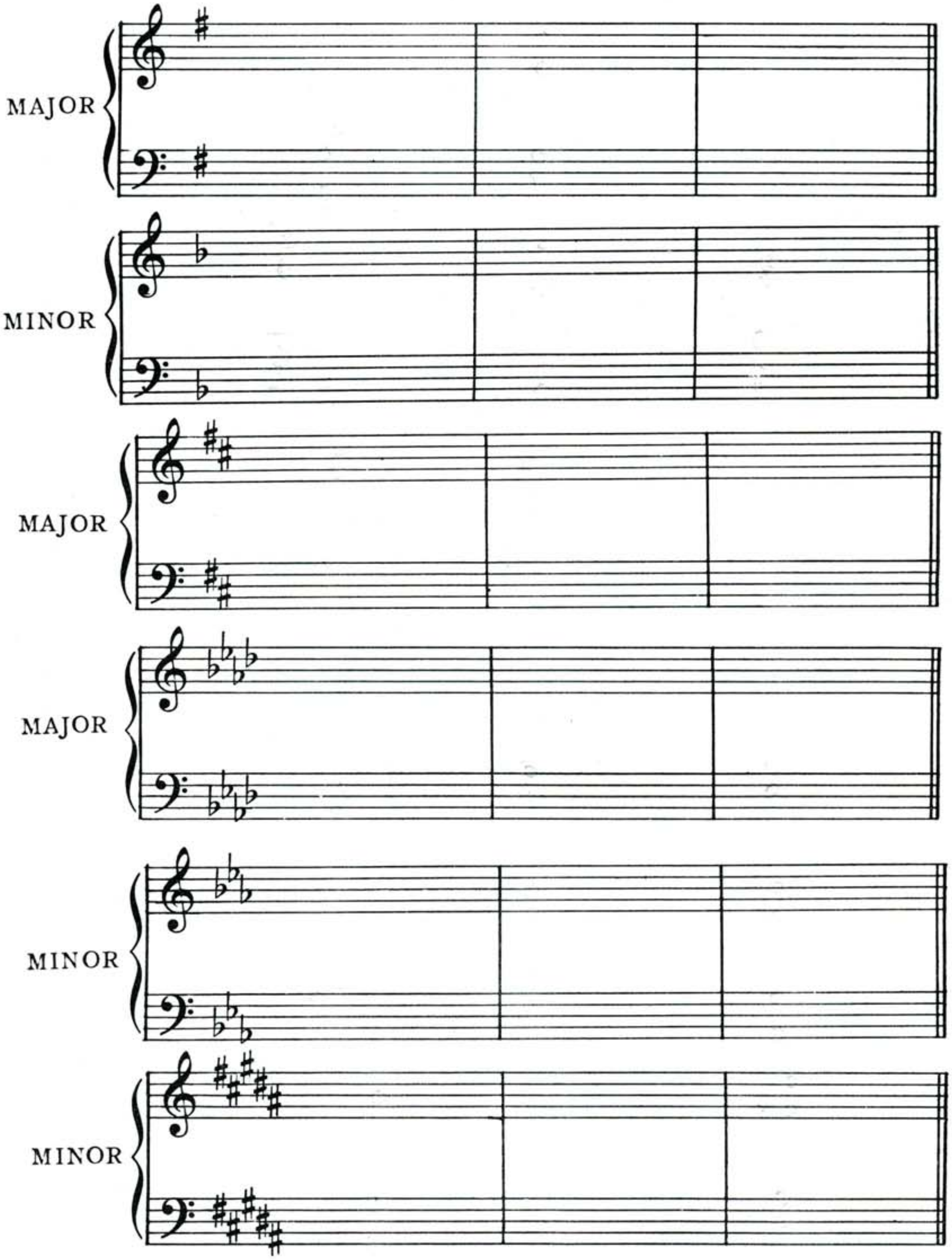


I IV V

MINOR



I IV V



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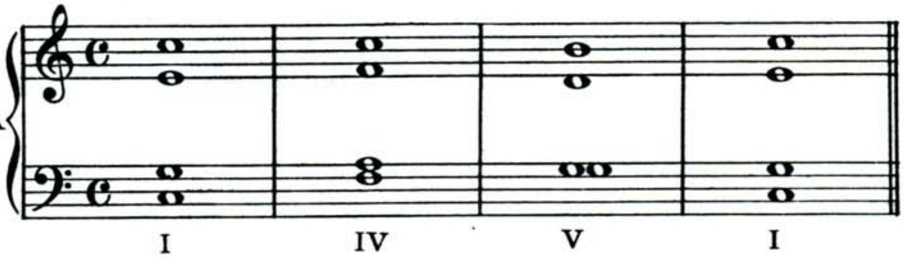
THREE SUBSTITUTE CHORDS

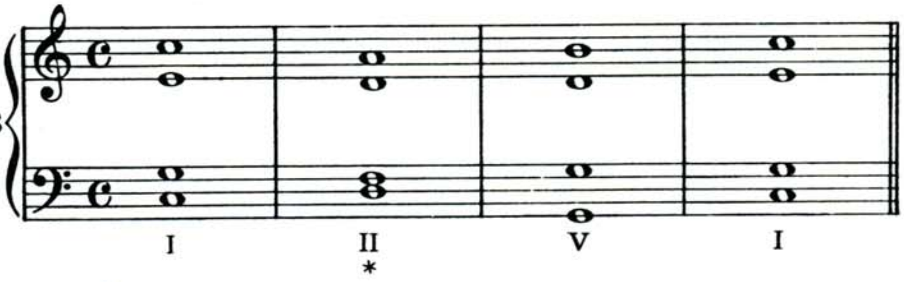
As you learned in the last lesson, the three strong chords are I, IV, and V. However, music would get very monotonous if only these three degrees were represented for the entire harmonic structure of any composition. Consequently the chords built on the second, third, and sixth degrees of any key are occasionally used as substitutes. The VII chord is omitted in Modern (Elementary) Harmony. It will be taken up in Modern Advanced Harmony. (The VII chord requires special treatment which can be understood only after having completed elementary harmony.) These *substitute chords,* II, III, and VI, add variety to music. They are often called secondary chords.

Before you actually write out these chords, study the following examples to see how they are used in harmonization. At this point you are not expected to know how to harmonize basses or melodies so don't concern yourself with the harmonizations in themselves, but just look them over to see where the *substitute* chords have been used.

In each case example A is an original harmonization, and example B is practically the same harmonization except that *substitute chords* have been used in place of *strong chords* at certain points. Each of these points in example B have been marked with an *.

First, let's see how the II chord can be used:

Ex.A


Ex.B


Now, let's examine the use of the III chord.

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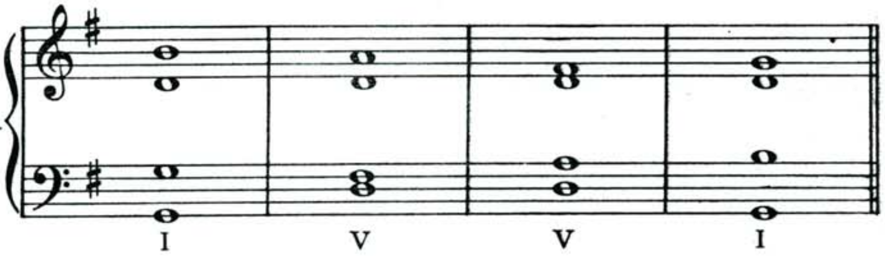
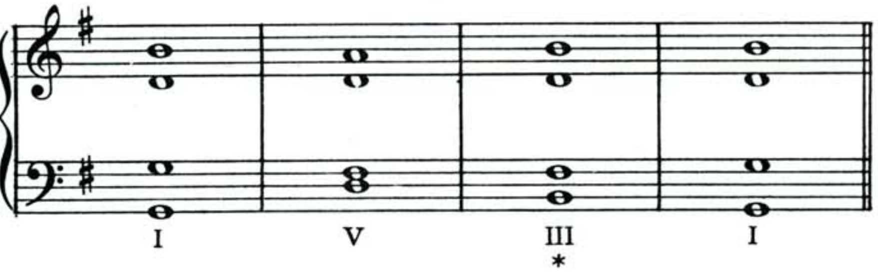
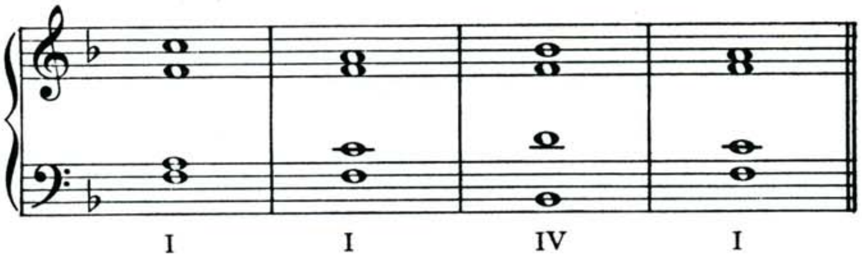
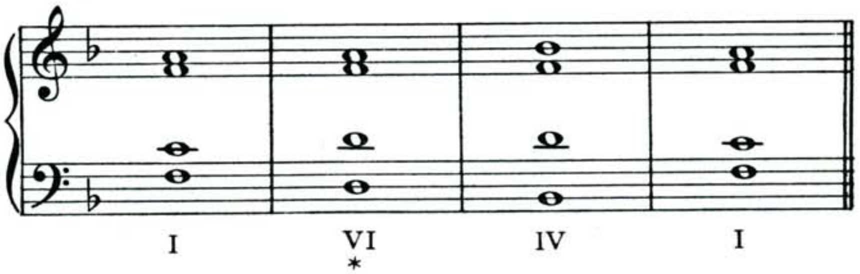
Ex. A


Ex. B


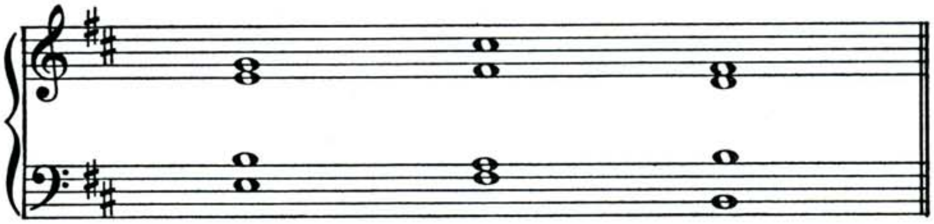
Finally, let's look at the use of the VI chord.

Ex. A


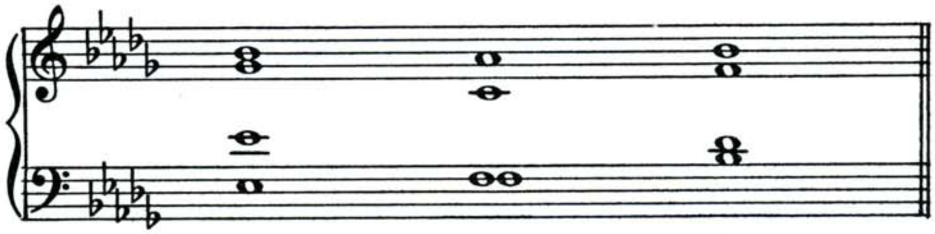
Ex. B


Since you have some idea just why and how these substitute chords are used, let's make sure that we can build them in any key. Let's follow the same procedure that we used when we built *strong chords*.

For example, suppose the final bass note of a piece is D. Then we know the tonic chord, or I chord, is the D chord. The II chord would be built on E. The III chord would be built on F♯. Finally, the VI chord would be built on B.



II III VI

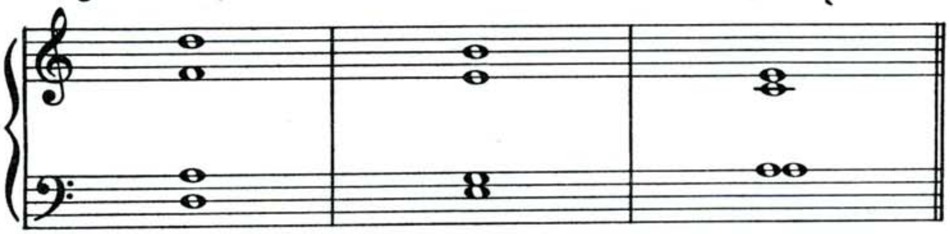


II III VI

WRITING LESSON

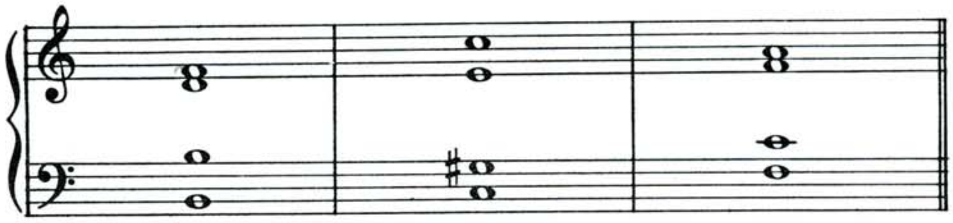
1. Write the II, III, and VI chords in each of the following key signatures. (In minor the III has an accidental, why?)

MAJOR

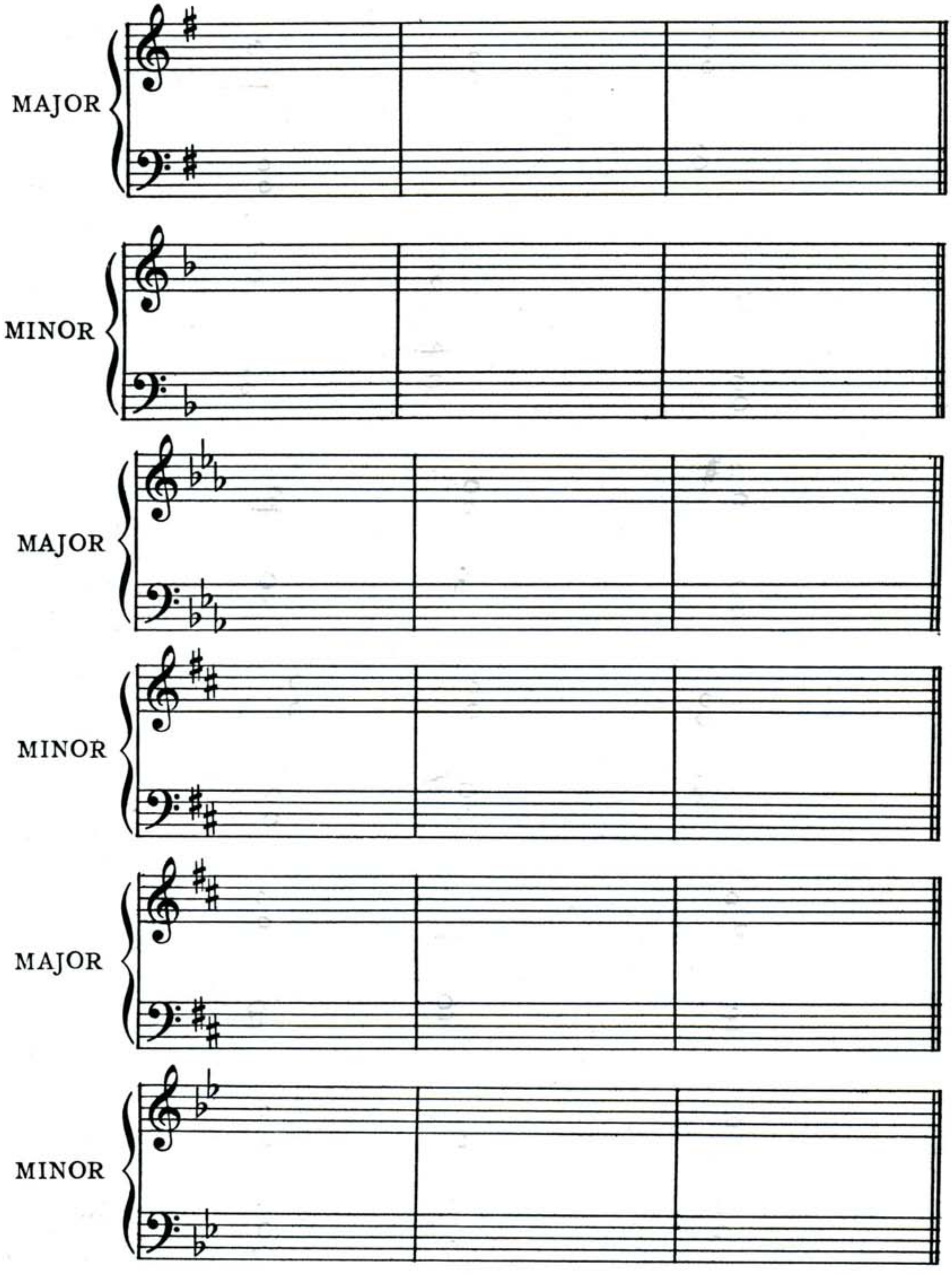


II III VI

MINOR



II III VI



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USING THE KEY SIGNATURE TABLE

Now that you are better acquainted with chords you are ready to study progressions. Actually you will not begin learning the rules for progressions until you reach Lesson Eleven, but it will be well to take a few minutes here to explain just what we mean by progressions. Then we shall use the Key Signature Table so that when we get into the study of progressions we shall have no trouble with keys.

A progression is one chord moving into another

As you know, the bass part is the most important line in music. Harmony is a lot like the game of "follow the leader". The bass is the leader, and the other voices have to follow along depending upon what direction the bass takes. A better name for the bass might be the *Boss.* And that he certainly is; when he decides to jump up five tones, (a fifth), the upper voices must move according to strict rules; then, again, the *Boss* might want to jump a fourth, a third, or a second; in every case the upper voices are mere puppets obeying the dictates of the bass. The bass is the quarterback on this team and the other voices are the players who move into position always obeying the quarterback's signals.

Harmony is something like football, too, for as football is a series of plays which, if correctly executed, ends with a touchdown, so harmony is a series of progressions, which if correctly executed, ends with a tonic chord.

It is important in working out progressions that you are always aware of which chord is tonic. So look at the Key Signature Table to be sure which chord is tonic.

Throughout the rest of the Course you will be given harmony examples to complete. Each one will be a bass part alone. Your job will be to fill in the upper voices correctly.

The procedure will consist of three steps:

1. Look at the key signature. Find it in the Key Signature Table; Check the final bass note with the final bass note listed in the Key Signature Table. Is the example in Major or Minor?
2. Do the example.
3. If the music is in Minor, look in the Key Signature Table to see which note must be made sharp or flat throughout the Harmonization.

This might seem like a lot to remember but as you learn to harmonize these three steps will seem natural. Just to show you how easy it is let's practice right now. You aren't expected to understand the progressions at this point, so just follow the procedure to be certain that you will do your harmonizations correctly later. Look at this sample:

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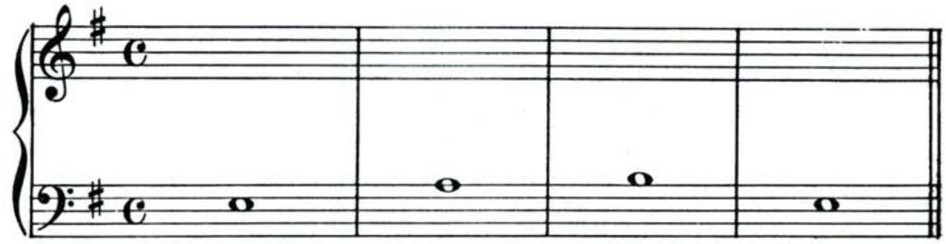
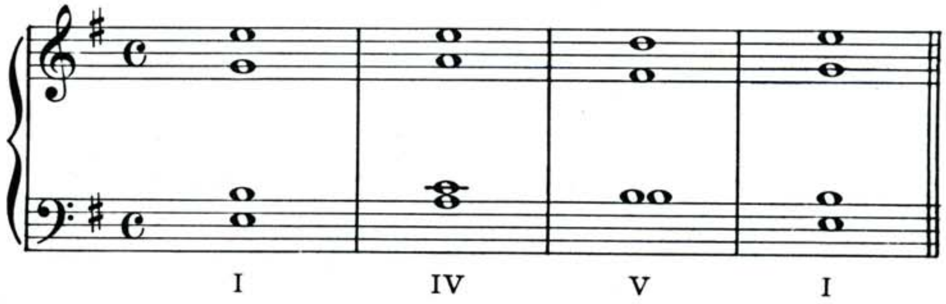


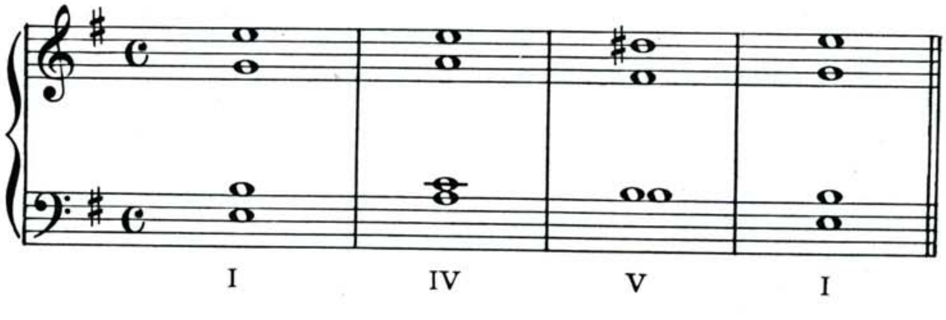
Now, follow step 1.

Find the key signature in the Key Signature Table. Look at the final bass note. It isn't the same as the final bass note in the MAJOR section of the Key Signature Table, is it? However, it is the same as the final bass note under the MINOR section. Therefore, the example is in a minor key.

Since you know the final bass note you know the tonic chord. Now, let's pretend you've done the harmonization and it looks like this:

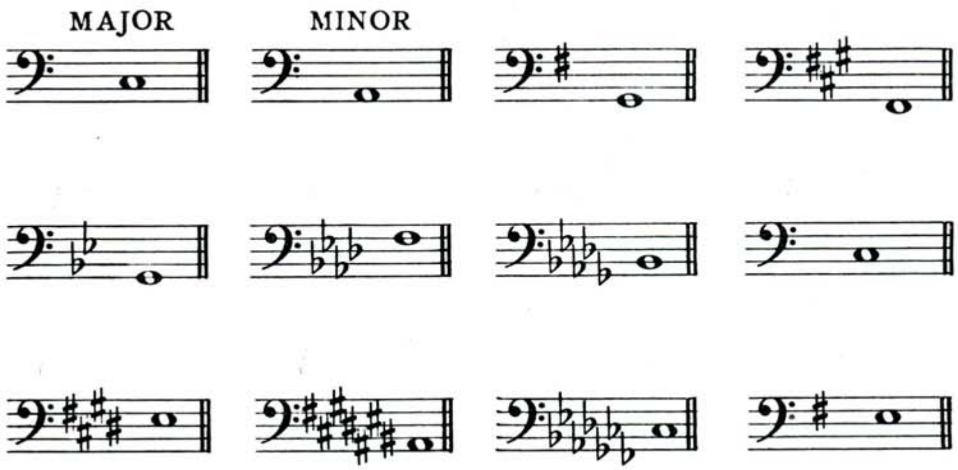


You remember though, this is minor. So, looking at the Key Signature Table again, you find that you must change all D's to D sharps. sharps.

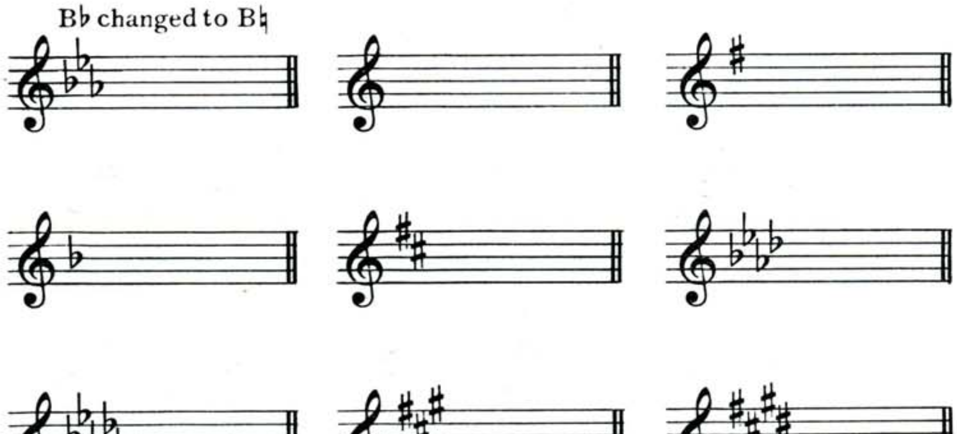


WRITING LESSON

1. In each example write above whether it is in major or minor. (Each bass note is assumed to be a final bass note.)



2. In each example write the note you must change in the minor key.



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Check this writing lesson by going over it several times yourself.

WRITING LESSON HINTS

The main purpose of the writing lessons from Lesson 11 on is to give you practical work with chord progressions. Also, these lessons have been planned to help you learn the different keys, time signatures, and rhythms.

By using the Key Signature Table you will easily acquaint yourself with the keys. Any time signature can be figured out if you remember that the upper note tells the number of beats in a measure, and the lower note tells what kind of a note gets one beat.

Study each example before you do it. Observe the rhythm of the bass. Notice where the rests occur. When you add the upper voices be sure the rhythm is the same as the bass. If there is a rest on the bass staff the completed harmonization will have a rest directly above on the treble staff also. Even though there may be rests between chords the progressions will be made according to the same rules.

The above hints in regard to rhythm and rests apply only to the writing lessons in this Course. Do not misunderstand. As you will learn in the Modern Advanced Harmony Lessons 25-48, the four voice lines do not always follow the same rhythmic pattern. For the time being, however, keep the same rhythm for all voices. This will allow you to give complete attention to the chord progressions.

After the review, go to Lesson 11. Read the discussion carefully, and then begin the writing lesson, keeping *writing hints* in mind at all times.

REVIEW

If you play a musical instrument perhaps you remember your first lesson. You probably began by learning something about the instrument itself. Do you remember your impatience as you studied the various parts of the instrument? You were impatient because you didn't want to waste any time with a description of the instrument you were to learn, but you wanted to start playing right away—to get your hands on the instrument and make it sound sweet music!

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This natural impatience about wanting to get right down to business is a valuable trait. Eagerness is the desire to learn. However, as you probably realized after your first lesson, the description of an instrument and its important parts is absolutely necessary.

Perhaps you've had a feeling of impatience because you have spent considerable time on fundamentals before actually harmonizing music. As you go along in the next few Lessons you will see the wisdom of spending time in careful preparation. From now on you will actually be doing harmonization.

Let's review a few ideas presented in the last several Lessons before going on to the study of progressions.

Did you successfully do all the examples that dealt with writing the chords in different structures on the great staff? Remember the lowest note of the chord is the one you should double when writing four voice harmony. Keep in mind that the voices should be spaced no more than an octave apart, except the tenor and bass which may sometimes be more than an octave apart.

The *three strong chords* in harmony are the chords in I, IV, and V. Go back and play over the exercise using *Old Folks At Home*.

The *three substitute chords* are the II, III, and VI. Be sure you can build these in any key.

A progression is one chord moving into another. Harmony is like Follow The Leader, and the bass is the leader.

If you do not perfectly understand the Key Signature Table by now look it over again; also read Lesson Four and then Lesson Nine. The Key Signature Table will be a great time saver for you. Remember the best way to tell whether a piece is major or minor is to *check the final bass note* in the Key Signature Table.

For example, suppose the key signature of a piece is three flats and the final bass note is C. The final bass note in the major section of the Key signature Table is E♭, but the final bass note under the Minor section is C; so, this piece must be in C minor.

Each Lesson from now on will give you examples of various progressions. For each Lesson there will be a writing lesson. Before you do any of the examples always make sure you know the tonic chord and whether the music is major or minor.

In some cases you will be able to tell these two things by looking at the final bass note, because you will soon have memorized some of the key signatures and their final bass notes. However, for the first few lessons on progressions, make consistent use of the Key Signature Table.

Now you are about to take the first steps toward becoming a composer.

MODERN HARMONY EXAMINATION #2 Covering Lessons 6-10

Send the completed examination to the U.S. School of Music, Port Washington, N. Y. *The corrected exam will be returned to you.*

Name ______________________ Instrument ______________

Street or Box ______________________ School Key No. ____________

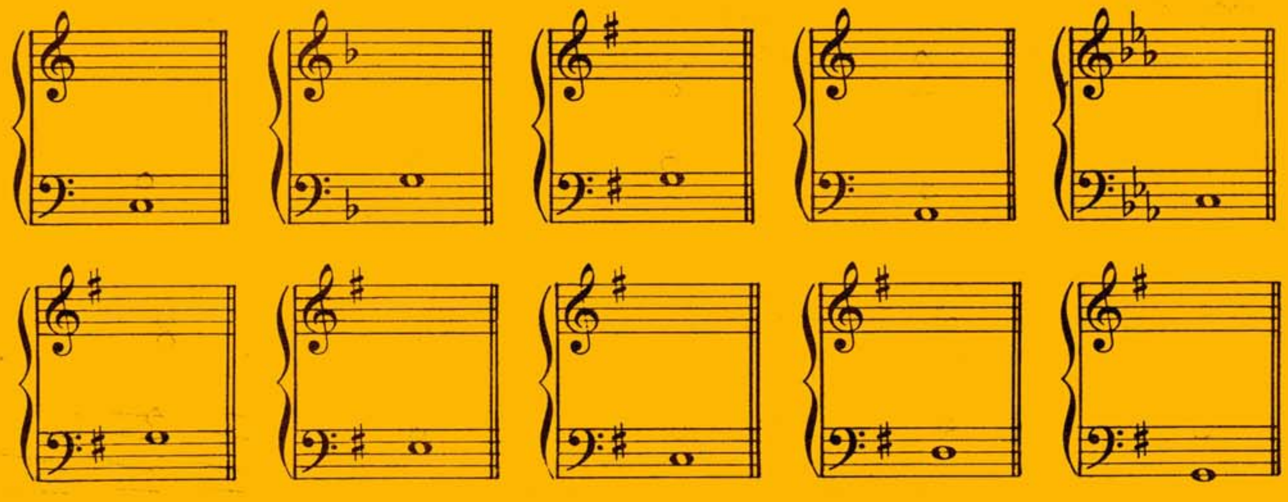
City ______________ State ____________

(Answer in this Space)

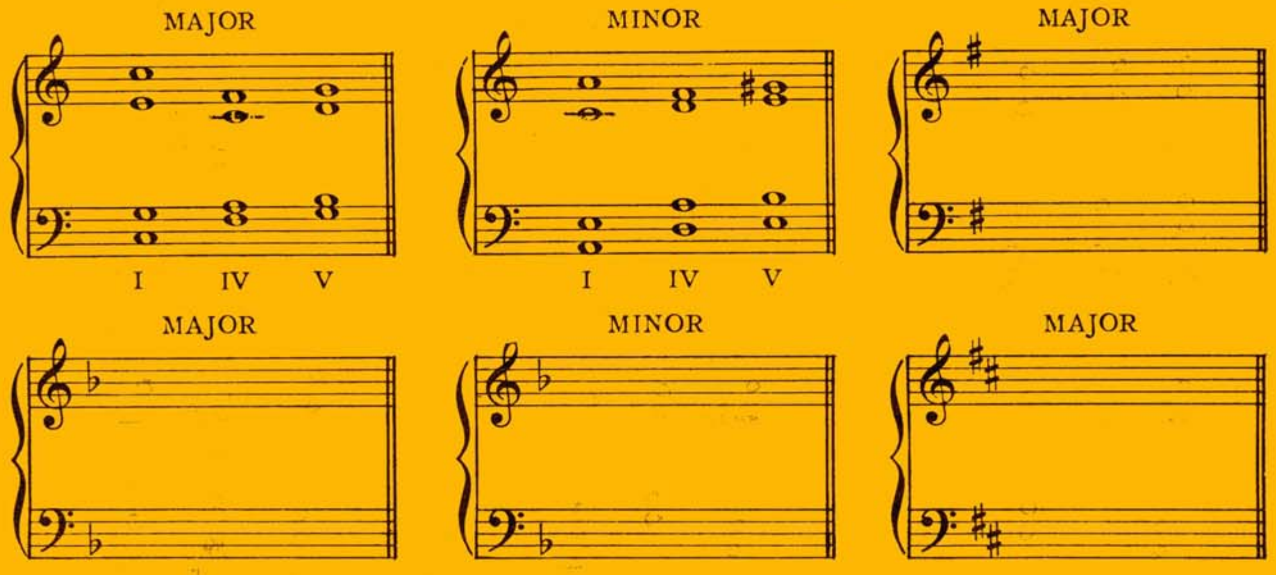
1. Write the Roman numerals for the three strong chords. — I, IV, V
2. Write the Roman numerals for the three substitute chords. — II, III, VI
3. Can the interval between the bass and tenor ever be more than an octave? True or false. — true
4. Harmony is like *"follow the leader."* Which voice is the *"leader?"* — bass
5. If the key signature is three flats and the piece is in major, the final bass note is ________. — E♭
6. If the key signature is four sharps and the piece is in minor, which note must be changed by use of an accidental throughout the piece? — B♮ to B♯
7. What is the keynote of the scale of two flats? — MAJ B♭ MIN G
8. The final bass note is the same as which note of the scale? — first
9. A piece has its final bass note -- A. There are no sharps or flats in the key signature. Is this piece in major or minor? — minor
10. A piece is in a major key. The key signature is one flat. What is the final bass note? — F
11. Another name for a musical sentence is ______________. — phrase
12. A long curved line over a group of notes is called a — slur
13. If the tonic chord (I) is the E chord, what is the IV chord? — A
14. If the tonic chord is the E chord, what is the V chord? — B
15. If the tonic chord is the F chord, what is the VI chord? — D

WRITING EXAMINATION #2 (Lessons 6-10)

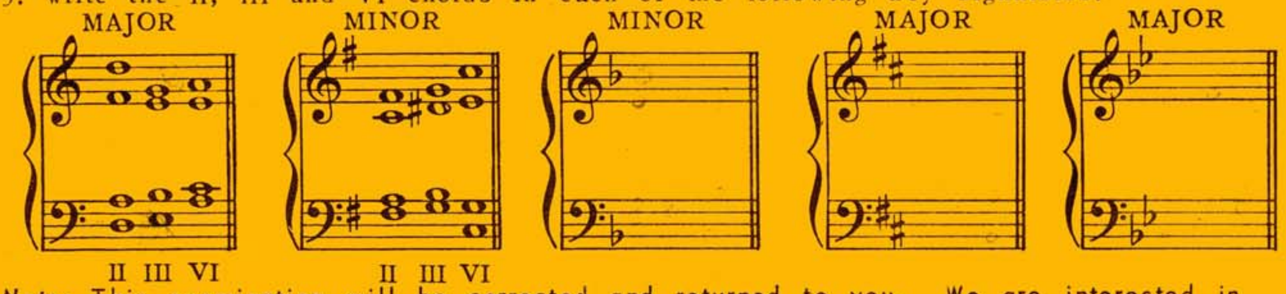
1. Write a chord on each bass note. Double the fundamental in each chord.
   (All examples are in major.)



2. Write the I, IV and V chords in each of the following keys.



3. Write the II, III and VI chords in each of the following key signatures:



Note: This examination will be corrected and returned to you. We are interested in your continued progress. Keep us informed. When asking for information on any part of a lesson, please mention lesson number and page and paragraph referred to.

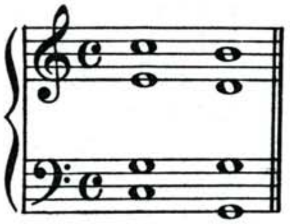
THE BASS MOVES A FIFTH

Everyone has had the experience of fixing a broken toy, a part of a machine, or some fixture around the house. Some people are adept at this sort of thing. Unfortunately most of us are not especially gifted in this way. Usually when the average person tries to put an appliance together he experiments with one thing after another until he manages to fix it or gives up. This is the trial and error method. If in the same situation one can consult an expert, or has someone who has a set of directions, he saves a lot of time in getting the gadget together again.

The same thing is true in working out harmonic progressions. You can move one chord into another in a trial and error fashion, but unless you have a special gift, or are a genius, in most cases the results of your labor will not be too good and will sound discordant and harsh. If you learn the time-tested rules of progression, and apply them, your music will be harmonious.

This one general principle about all progressions you must keep uppermost in your mind—ALWAYS MOVE EACH TONE IN ONE CHORD TO THE NEAREST NOTE IN THE NEXT CHORD. (This rule applies to the three upper voices since the bass is always free to jump around.)

To understand the above rule look at this progression:



In this progression the C chord moves into the G chord. Take each note separately in the C chord. Look at the soprano—it moves from C to B. The alto note E goes to D. The tenor note G holds as common tone. Finally, the bass C goes to G. You must assume that the bass part was already written. The three upper voices were added above it.

One of your composition aims should be to develop a smooth style. Begin now to move the voices correctly. Form this good habit early, and your future original writing, as well as harmonizations, will be benefited.

Now, you are ready to learn the first of the five basic progressions. WHEN THE BASS MOVES A FIFTH, HOLD THE COMMON TONE AND MOVE THE OTHER VOICES AGAINST THE BASS.

Here are a few examples:

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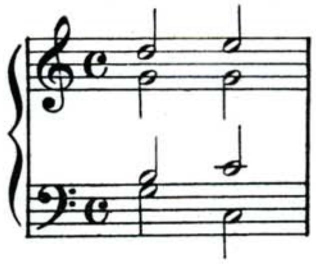
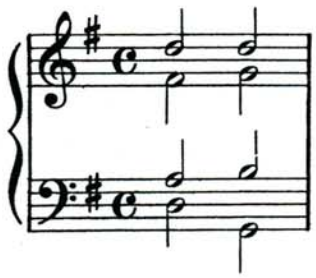
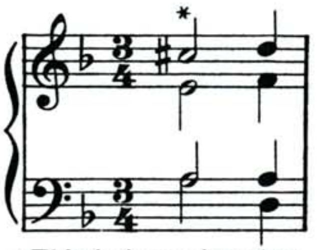
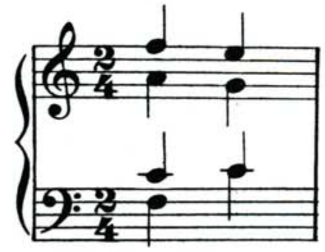






*This is in a minor key. Why? (See the Key Signature Table.)

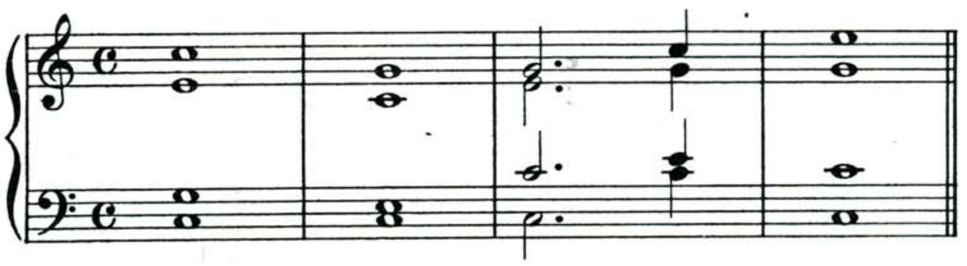


Notice that in every example you must hold a common tone. Also notice that the other voices always move against the bass; by *against* is meant that an opposite direction is used; if the bass moves down, the other voices move up, and vice versa.

None of the progressions will be harder than this one so you can see that progressions won't be too hard.

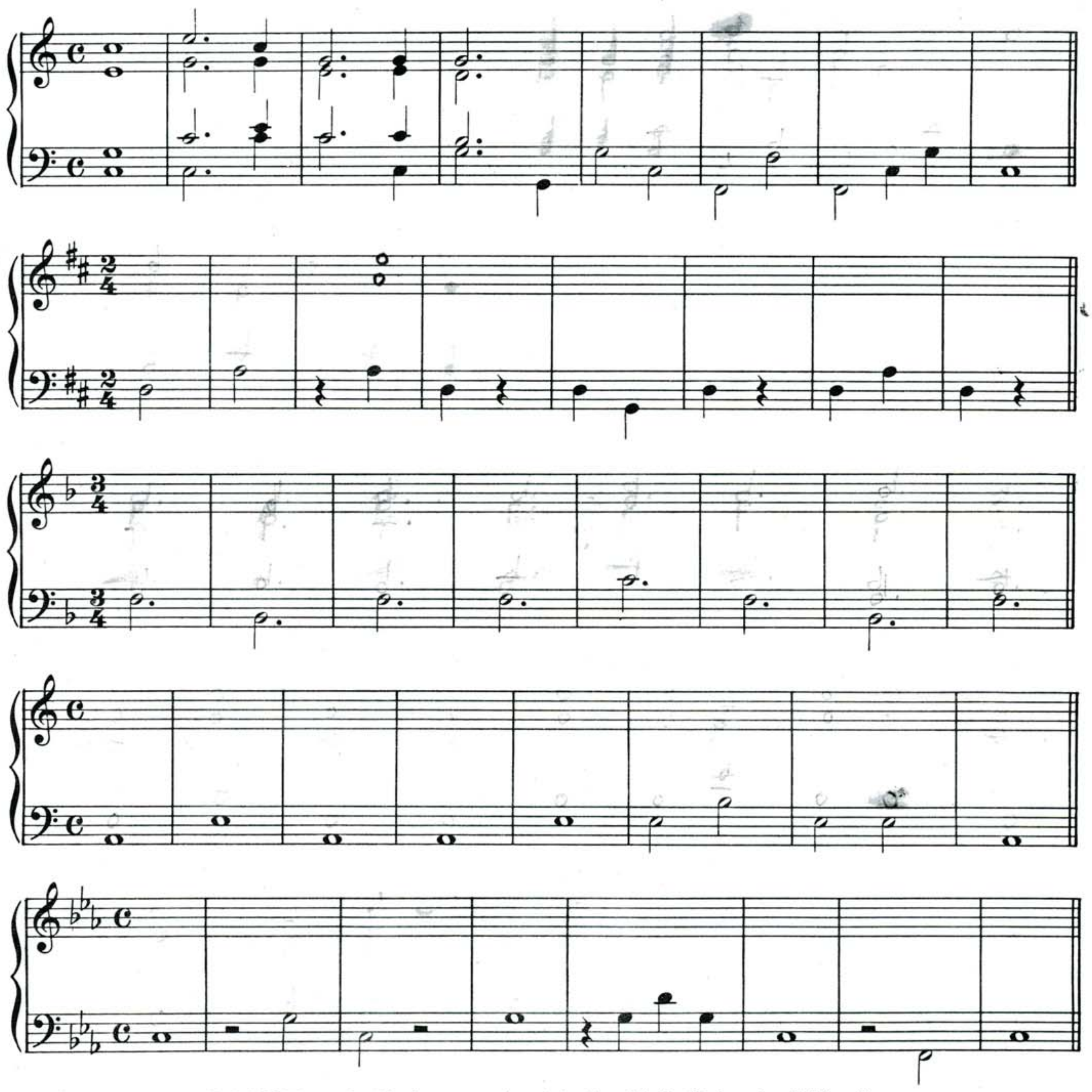
From now on until you begin to harmonize melodies each lesson will consist of a new progression and a few examples. At the end of each lesson will be a writing lesson consisting of several bass parts for you to harmonize. Do as many of them as you can.

There is one progression in which you can move the voices in any manner you like. This is when a chord repeats. In the example below the C chord is repeated five times. When this happens move the upper voices any way you want:



Go slowly with the writing lesson. These examples are your first attempts at actual harmonization. Get off to a good start!

WRITING LESSON



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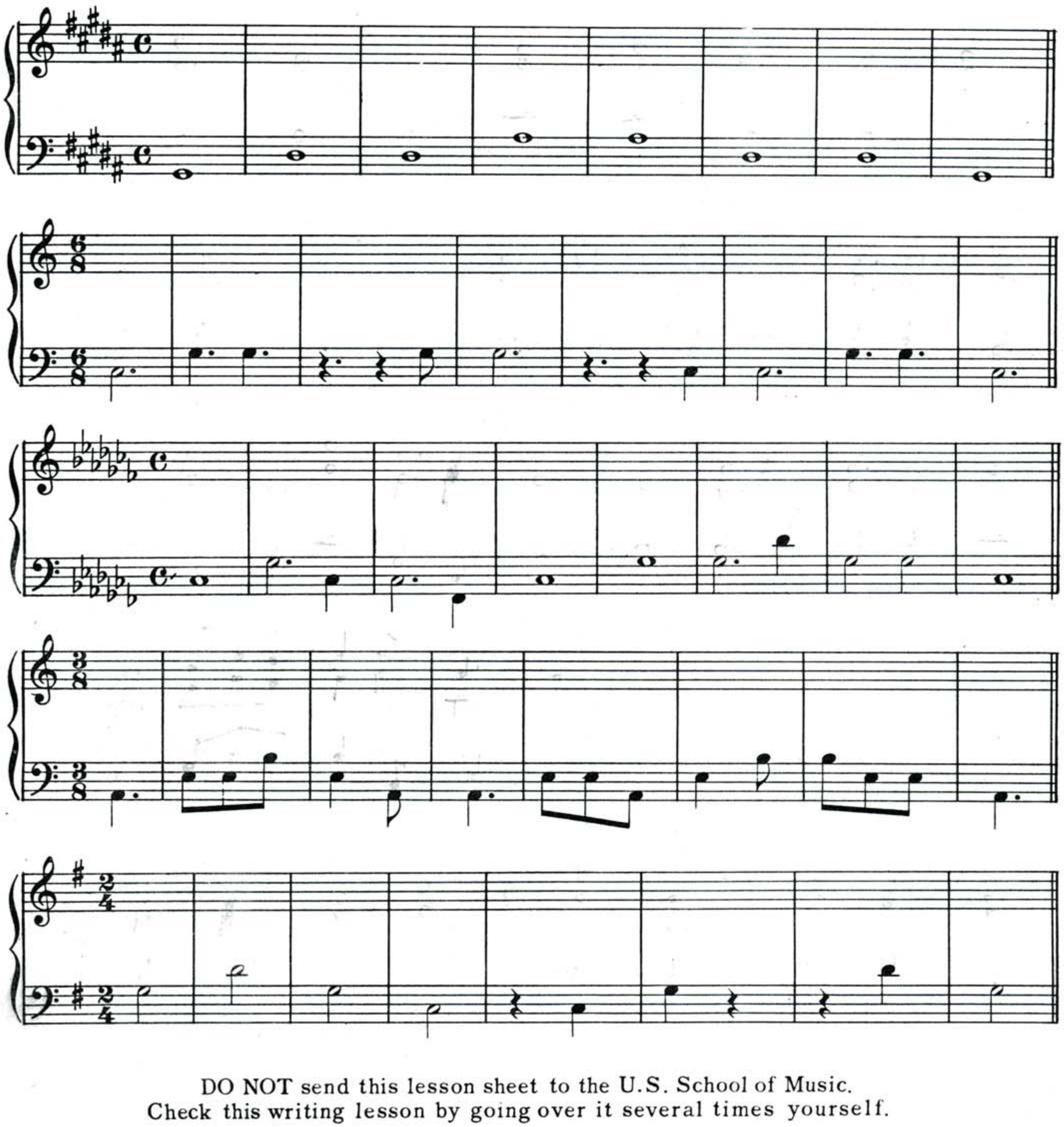
WRITING LESSON



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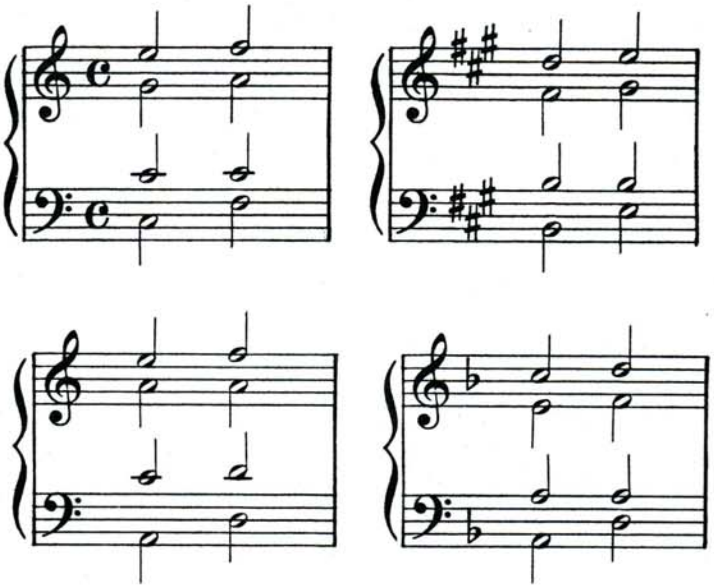
THE BASS MOVES A FOURTH

How did you make out with the writing examples in Lesson Eleven? Didn't you find it easy to lead the voices from one chord to the next when you knew exactly where the upper voices should have gone when the bass moved a certain interval? Doesn't it save time to work out the music merely by watching the movement of the bass?

You will find that elementary harmony is composed largely of five basic progressions. Each one is as simple to learn as the one you learned in the last lesson.

Here is another basic progression for you to learn. Look it over. Be sure you understand it. Look at the examples below carefully so that when you do some of the examples in the writing lesson at the end of the discussion you will have no trouble. (It is not necessary that you do every example in the writing lessons, but do as many as you feel you need to understand the progression taken up in the discussion.)

WHEN THE BASS MOVES A FOURTH HOLD THE COMMON TONE AND MOVE THE OTHER VOICES WITH THE BASS.



Compare this progression with the one of Lesson Eleven. This new progression is practically the same. In any of the above progressions it would be possible to move the bass down a fifth and leave the upper voices the way they are.

Now you know how to work with two basic progressions. Look at this example to see how much more interesting music becomes by simply using this new progression with the one learned in the last lesson.

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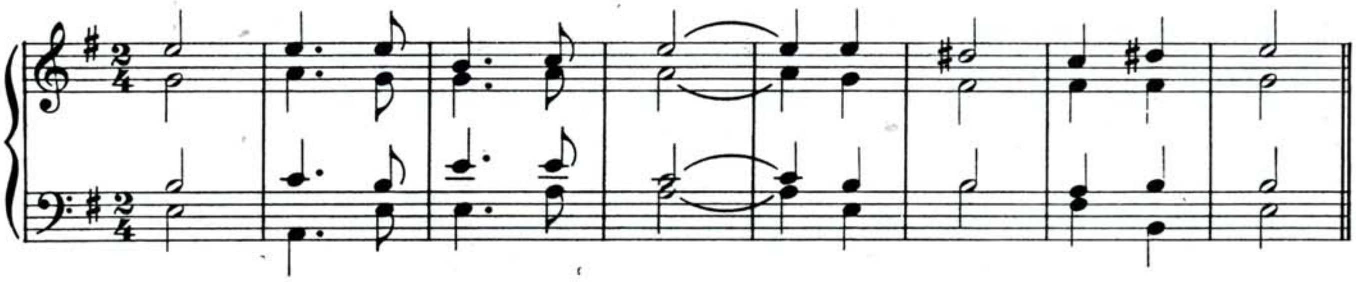
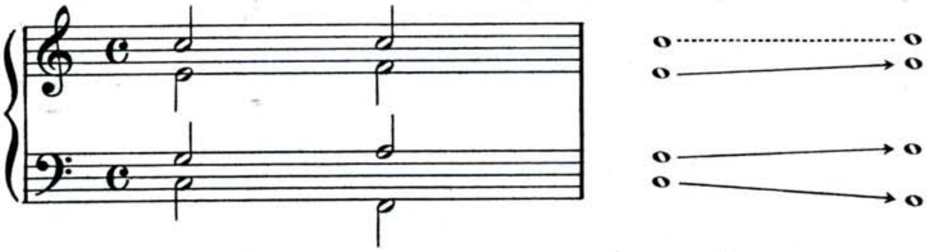
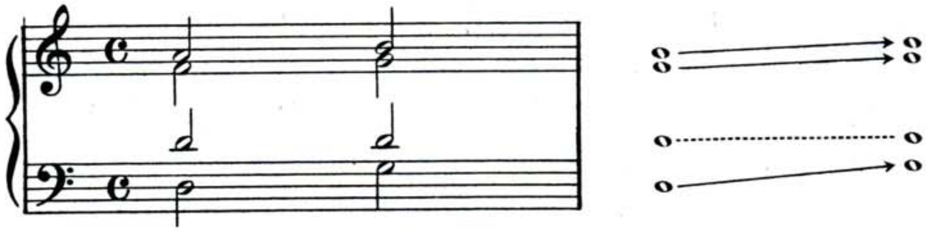


It sometimes helps if you can visualize basic progressions in a pictorial way. As you know, the horizontal movement of the voices is what you must strive to perfect. If you can learn to draw diagrams of the progressions they will help you to write harmony faster.

For example look at these two progressions and the diagrams beside them.

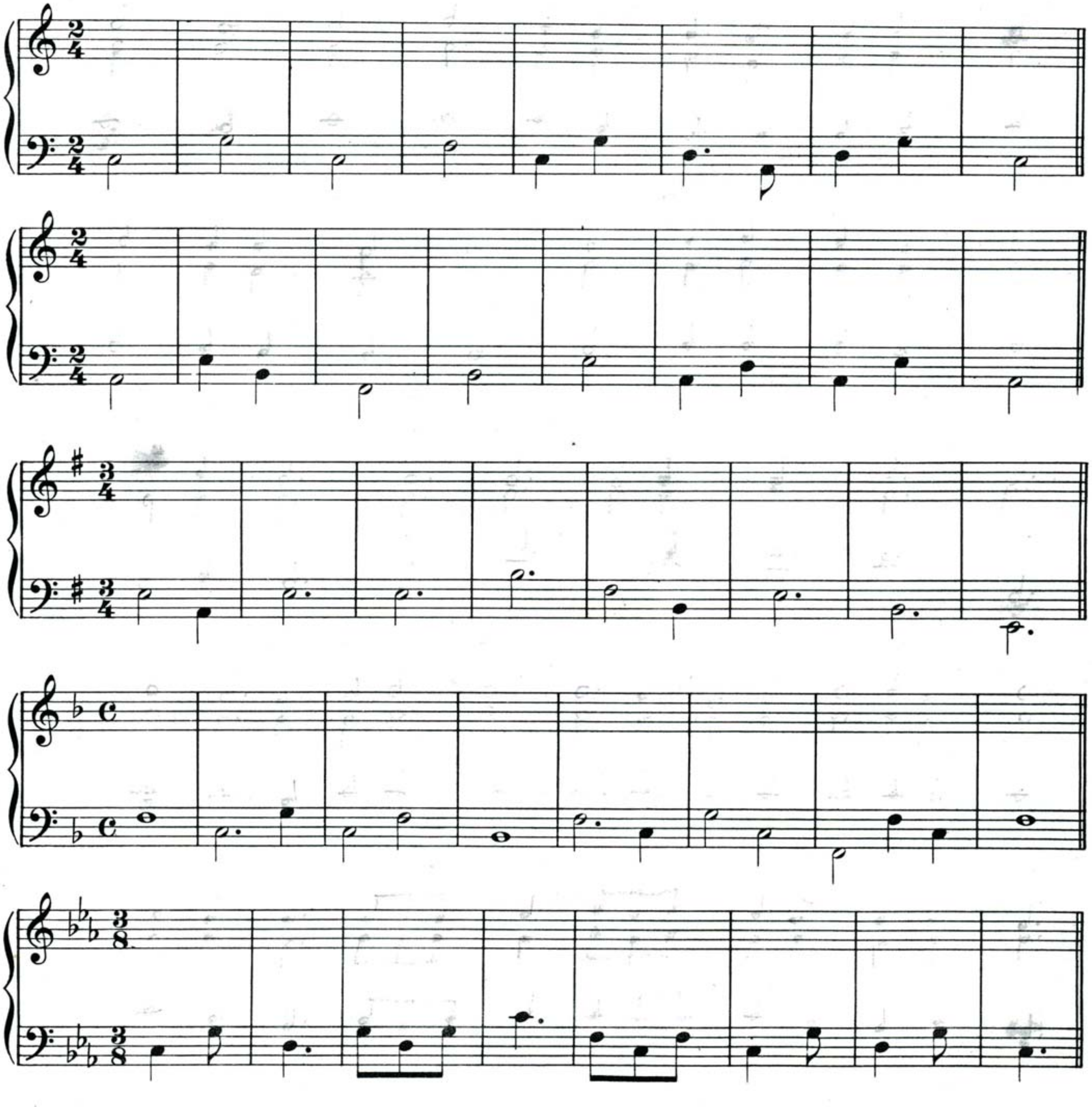




Write several progressions yourself and draw diagrams to describe them. When you do the writing lesson draw diagrams, or progression pictures as you go along with each progression.

Maybe the first few writing lessons will take a long time to do. Do not be discouraged! Remember you are traveling in a new, musical world. It may take you a little time to get accustomed to mapping out four lanes of tone at once, which you must do each time you harmonize.

WRITING LESSON



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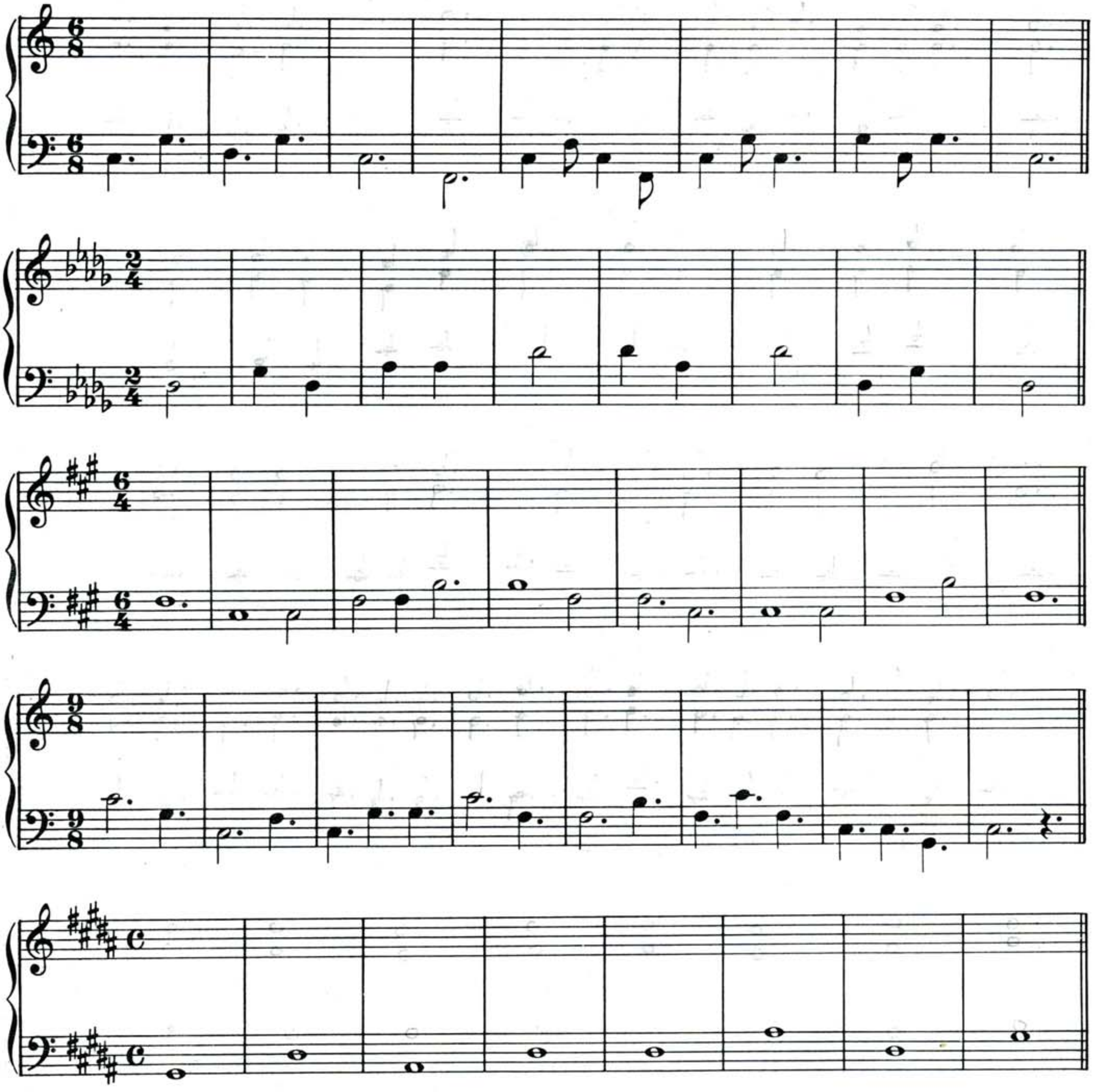

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HOME STUDY COURSE

MODERN HARMONY

Lessons 13 to 24

Reg. U. S. Pat. Off.

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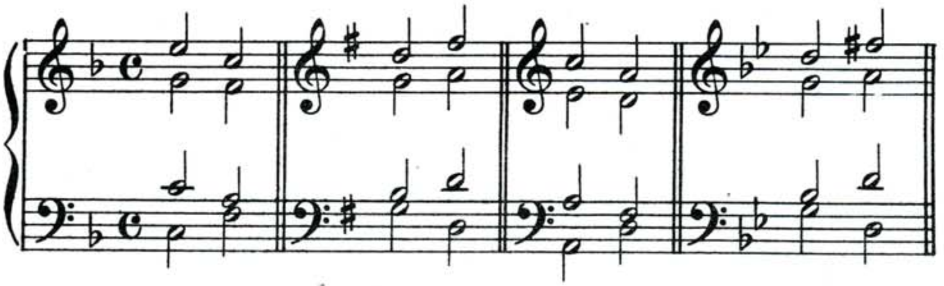
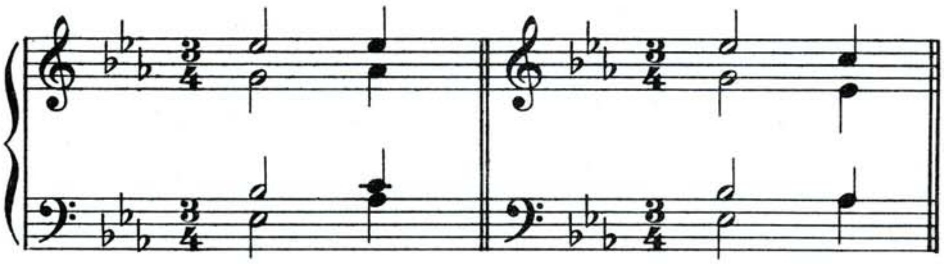
NEW YORK

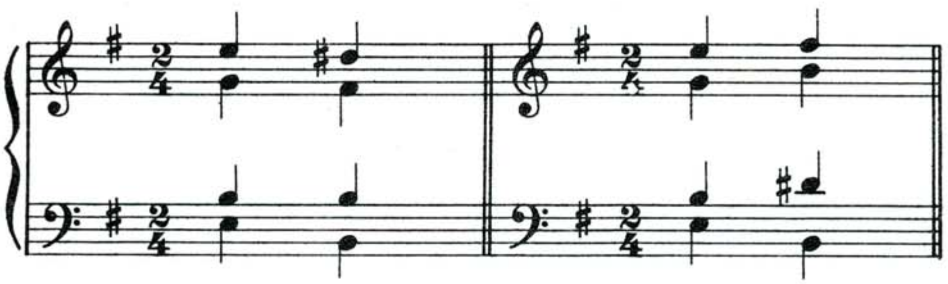
THE BASS MOVES A FOURTH
(Another Progression)

Though the progression in the last lesson is the most usual when the bass moves a fourth, there is another way that the upper voices may move in order to obtain smooth voice leading: **WHEN THE BASS MOVES A FOURTH THE UPPER VOICES MAY ALL MOVE AGAINST THE BASS.**



Compare the two different possible progressions when the bass moves a fourth:





Since you now have the use of three basic progressions be sure to employ them in the most interesting ways you can. Even when you do harmonize a bass correctly, if the melody, or soprano, line is too stationary—that is, stays on one or two notes over a group of several measures—re-harmonize the bass to obtain a better melody. Oftentimes, just by starting the melody line (soprano) on a different note of the first chord you can obtain a better melody.

For example, the harmonization which follows. . . .

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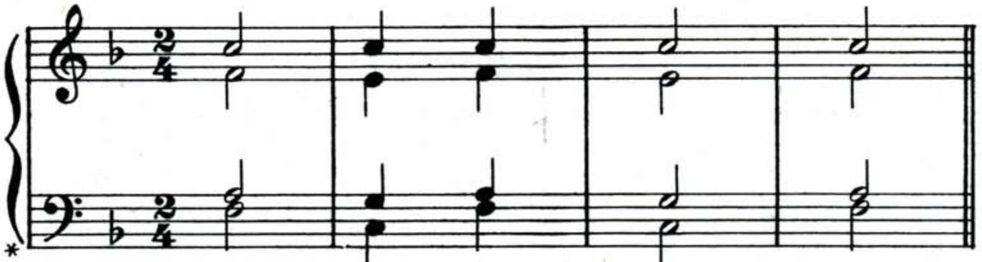
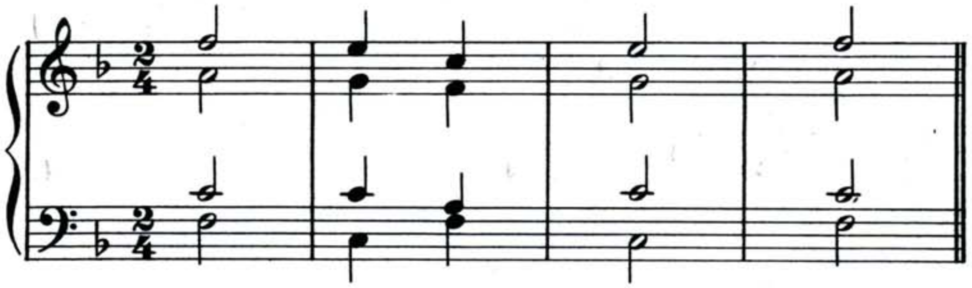


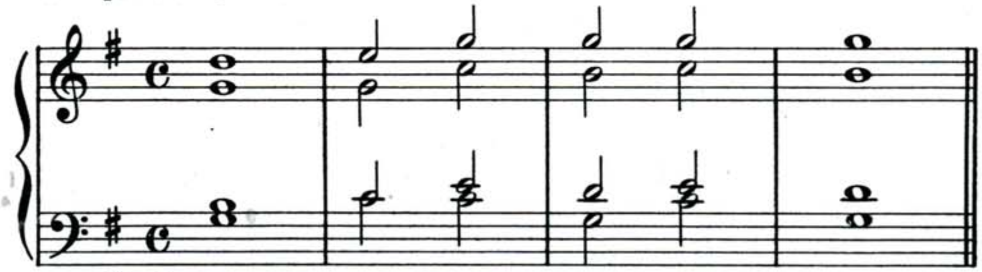
*{ Bracket is used to join treble and bass staves to make the Grand Staff.

. . . might be improved this way:

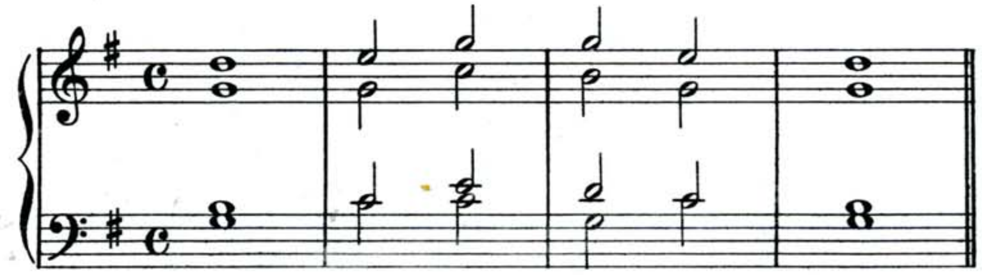


Also, if the bass leaps a fourth in several different parts of the piece try to make use of both possible progressions using each where it is most effective. In other words, if the melody is dull or the harmonization has been steadily progressing in an upward direction, you may be able to alter the melody or move the harmony down by the use of the right progression.

Compare this: . . .



. . . with this:



As you gain experience in writing you will see the importance of variety and will develop your own style, or choice of progressions, and achieve originality.

WRITING LESSON

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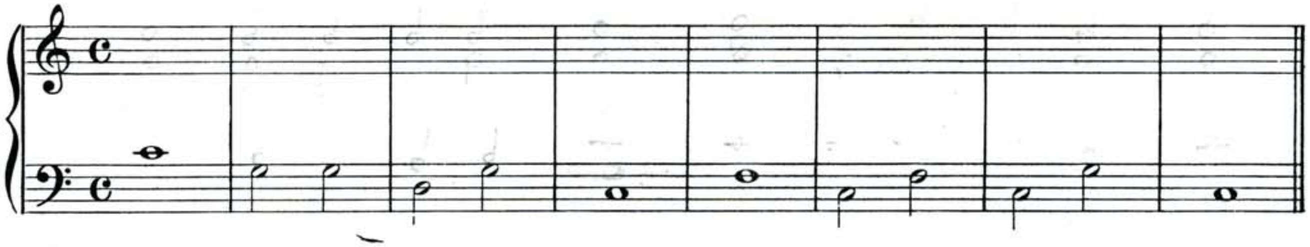

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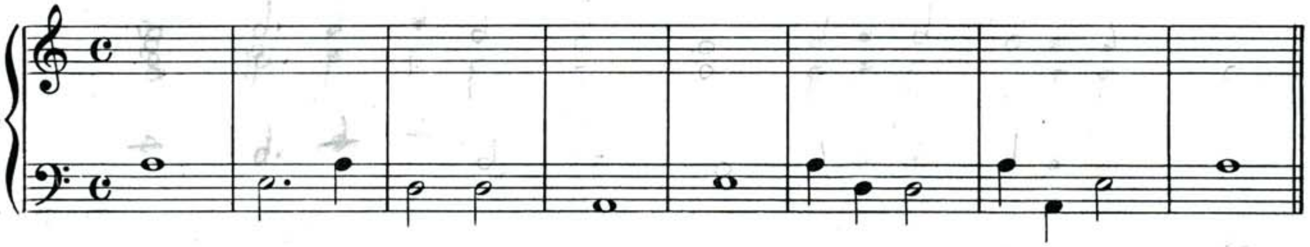

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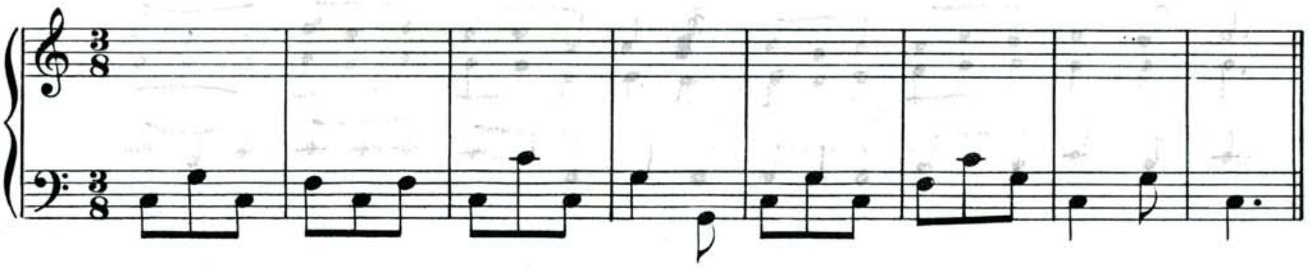

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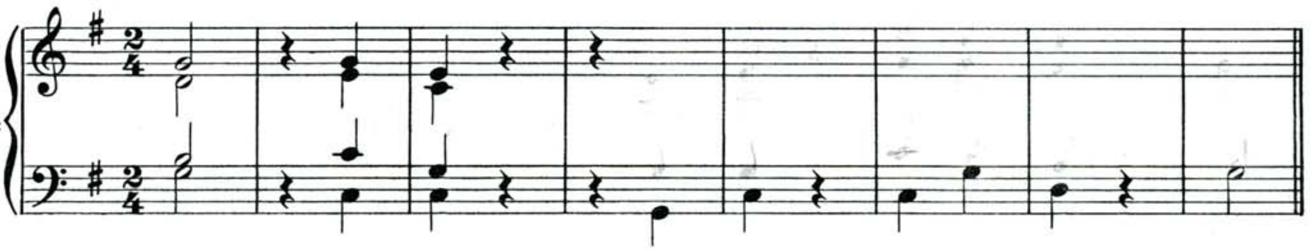

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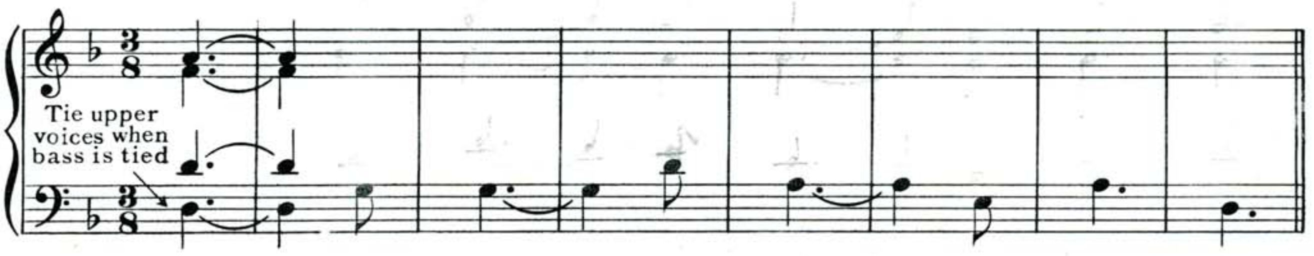

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WRITING LESSON

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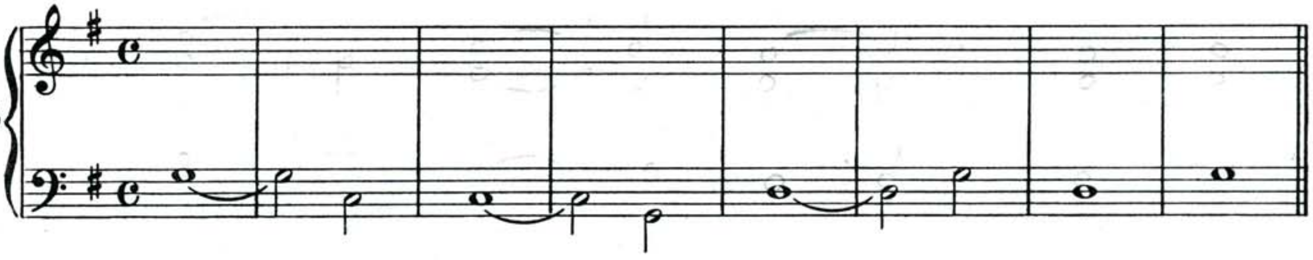

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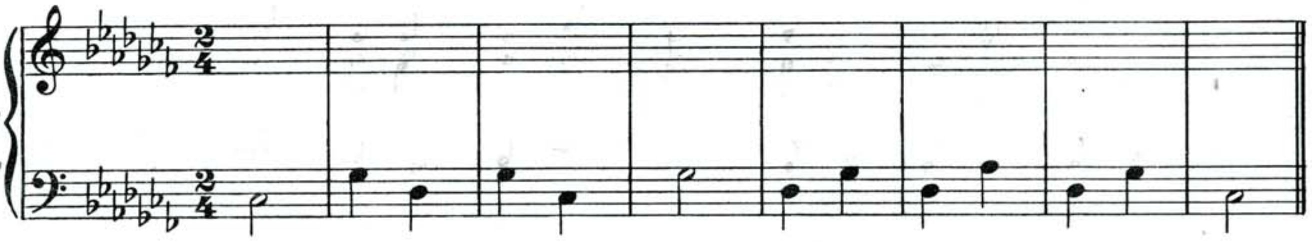

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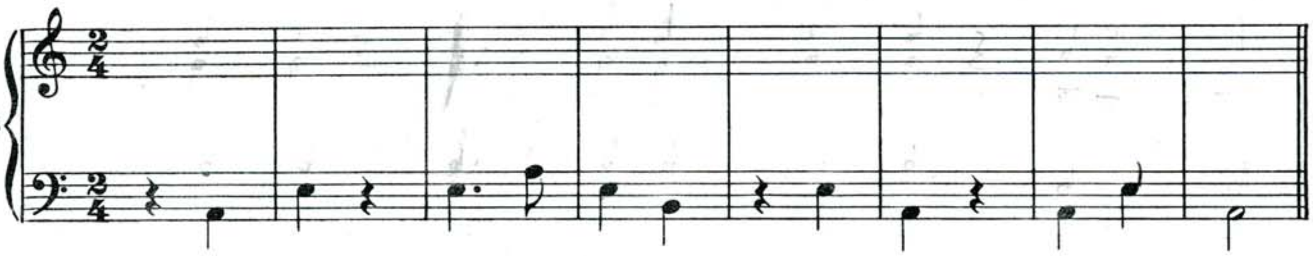

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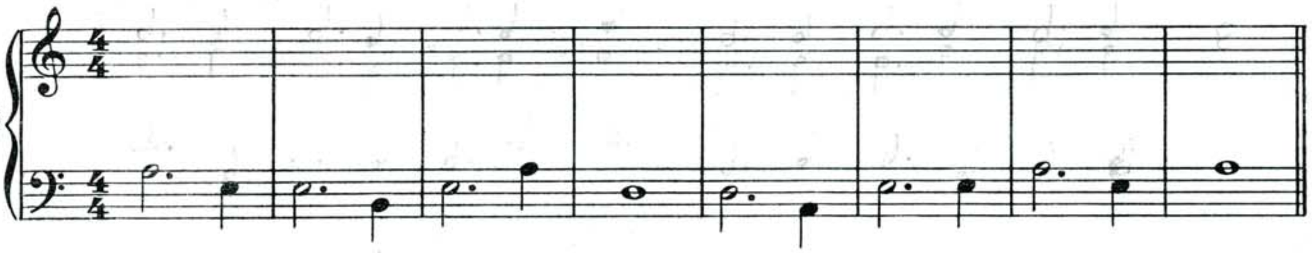

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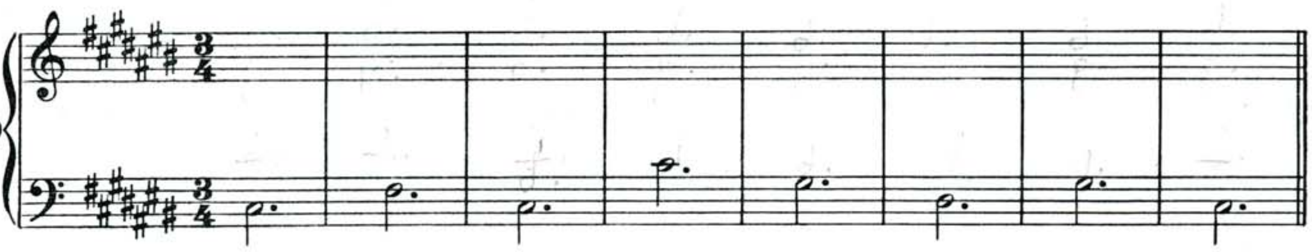

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THE BASS MOVES A THIRD

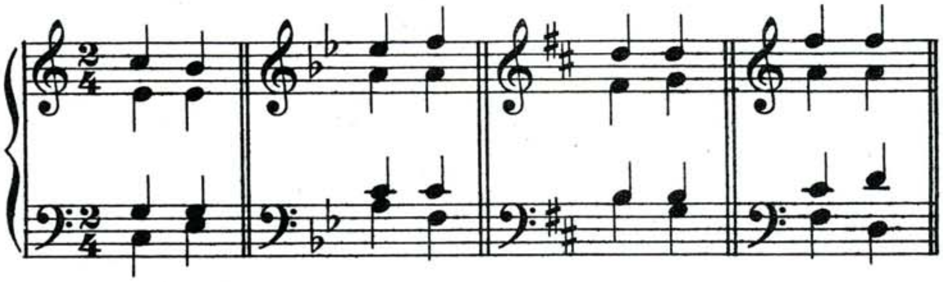
Have you enjoyed harmonizing the music in the last few lessons? You are realizing that harmony isn't so mysterious after all. It needn't be because harmony is a matter of understanding and applying basic principles which are simple in themselves.

In the middle ages musicians were looked on as magicians who evolved strange harmonies in ways known only to themselves by writing odd looking figures on parchment. Today a musician is a trained individual who designs harmonies like an artistic craftsman using the methods of modern science.

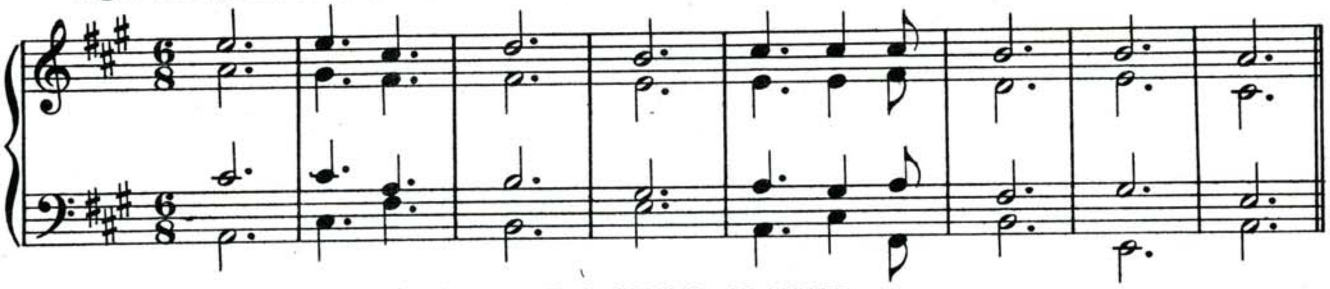
In Lesson 1, you took an imaginary trip from your middle west home town to New York via Chicago, Dayton, Buffalo, Rochester and on to New York. There are many other routes that would bring you to New York. They might take longer or shorter traveling time but they all arrive at the same destination. So in harmony, you are learning that there are various routes from the first to the last chords using a series of chords between, each chord following the other in a logical manner.

You have probably noticed that it is hard to attain variety using the few progressions taken up so far. This is because the bass has been leaping in nothing but fifths or fourths. However, in this and the next two lessons, valuable progressions are taught which will enable you to have a smoother bass, and a better sounding harmony.

One of these progressions is as follows: **WHEN THE BASS MOVES A THIRD, HOLD ALL THE COMMON TONES AND MOVE THE OTHER VOICE AGAINST THE BASS.**



Look at the music below and see how effective this new progression can be in bringing about smoother work. Notice the bass moving a third, fourth and fifth:



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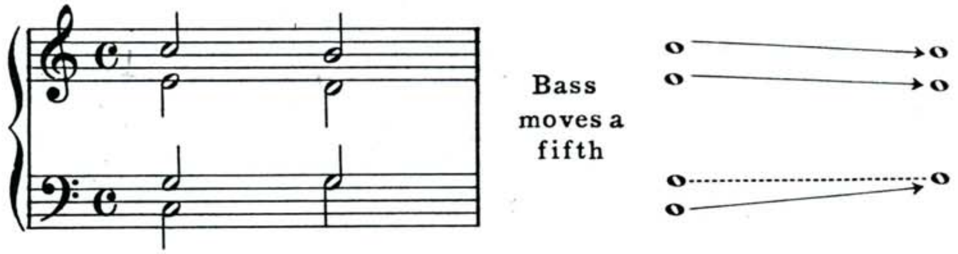
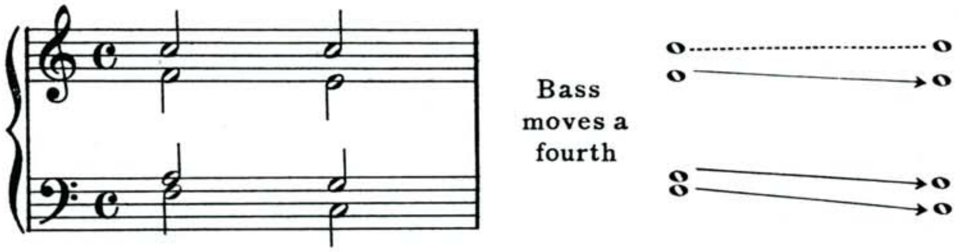
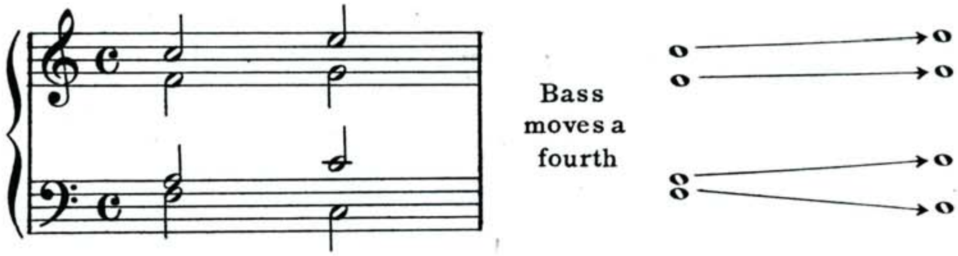
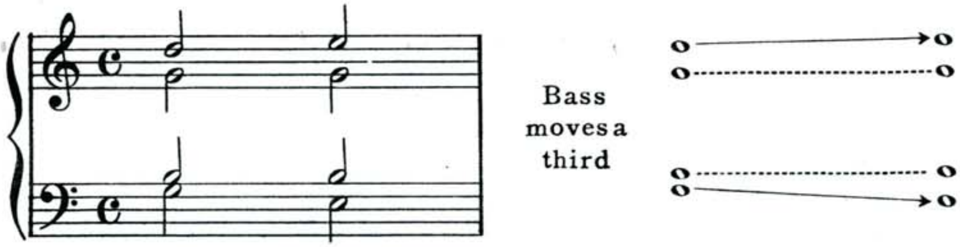
It will be a valuable aid to you if you practice diagramming the progressions as you did before. However, you now have four progressions altogether. When you draw them they should look like this:



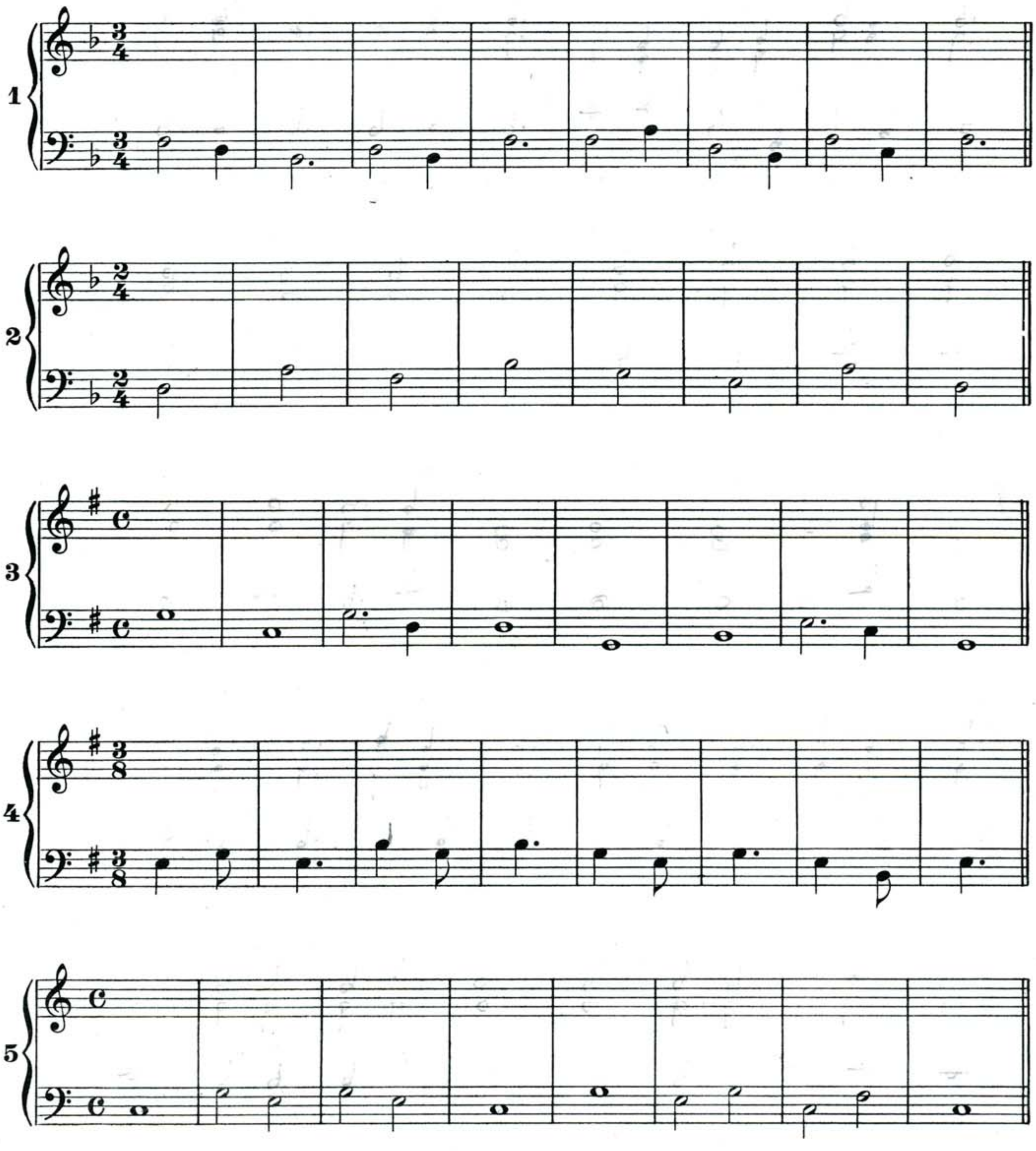






As you continue the Course don't forget to play the music you write. Eventually, with much practice in writing and playing harmony, you will be able to sit at the piano and work out your music without having to write it down first. Then you will find yourself improvising melodies, and will be well on your way as a composer.

WRITING LESSON



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WRITING LESSON

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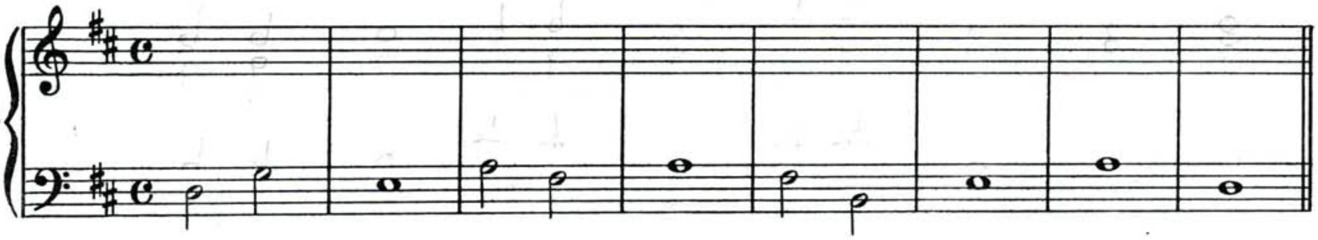

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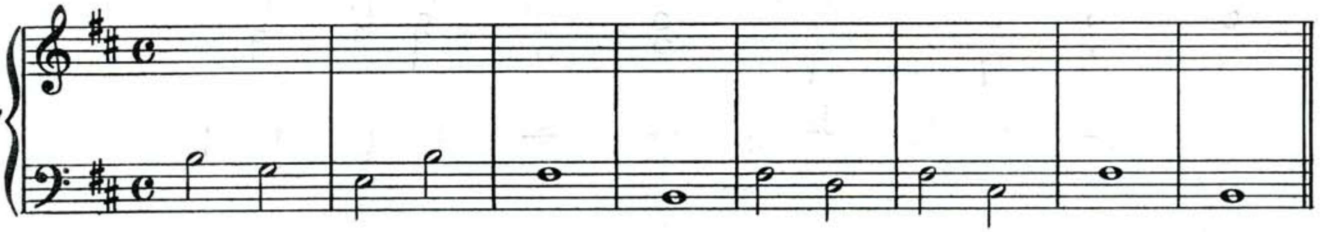

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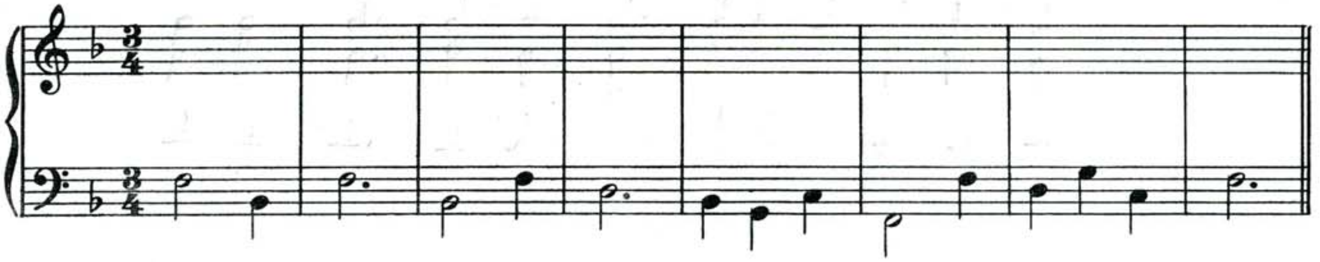

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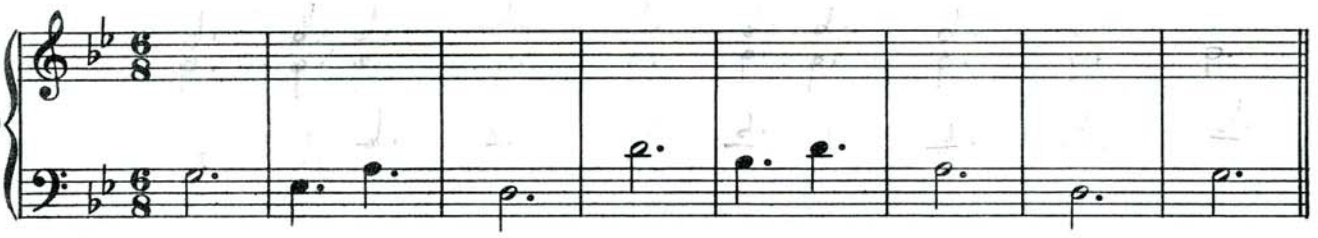

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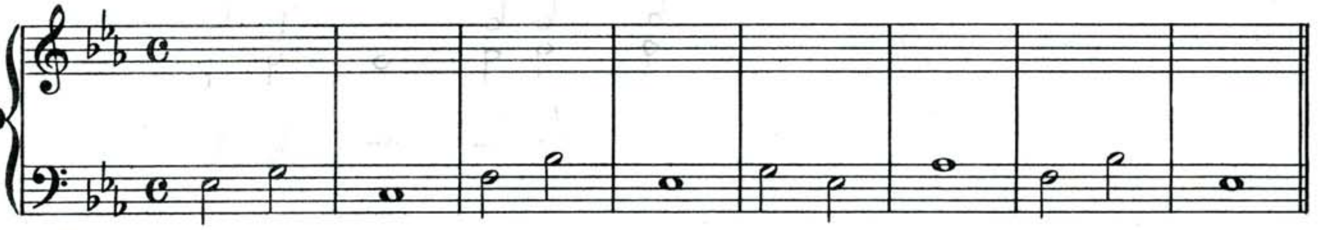

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THE BASS MOVES A SECOND

If you have learned all the progressions correctly up to this point, your music should sound smooth to the ear and will be well written. However, there is a natural tendency to write music too quickly, so be sure to check your work carefully at all times.

A rapid way to find possible errors in your music is to check for these two signs of faulty work:

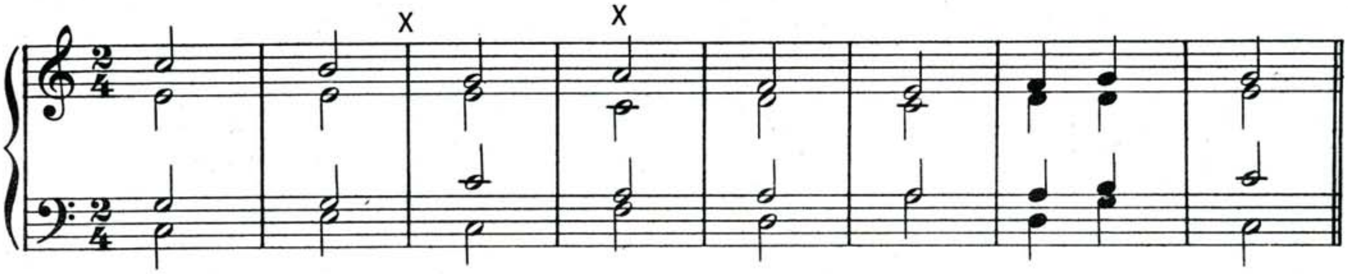
1. Doubling of a note other than the fundamental.
2. Poor alto or tenor lines. (Too many skips horizontally and more than an octave interval vertically.)

(You should attempt to write interesting soprano parts, too. See if they are melodious. Can you sing them?)

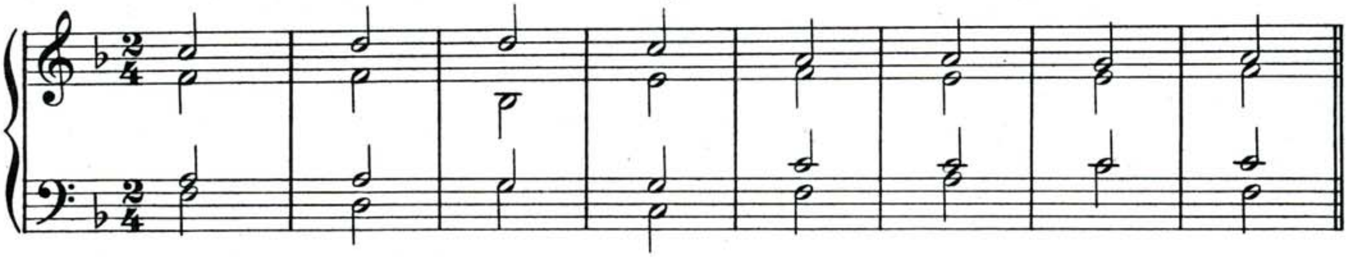
The best way to discover whether you have doubled wrong notes is to read each chord vertically—check each chord and make sure the fundamental has been doubled in every case.

In reading through the alto and tenor lines, check each point where there is a leap of more than a third. The only time when these voices can leap more than a third is when the chord repeats.

In the example below there are several deliberate errors indicated by an **X**. Try to figure out just what the error is in each case. In other words, where there is an **X** there has been a faulty progression, or the wrong note has been doubled.



In this example you will find errors also. Mark each one with an **X** and figure out what caused the error. To find all the mistakes first check for wrong doubling, then check the alto and tenor parts for leaps of more than a third. See if the common tones are held. Is there too large an interval between the upper voices?



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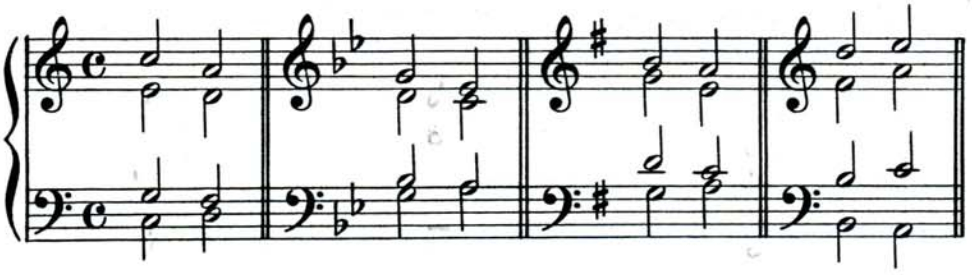
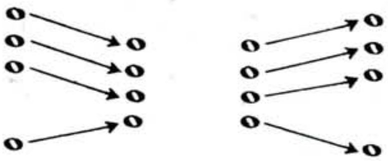
From here on, check each harmonization that you write, using the above method of checking. There will be further points to observe as you study more harmonic rules. We will bring them to your attention as you learn them.

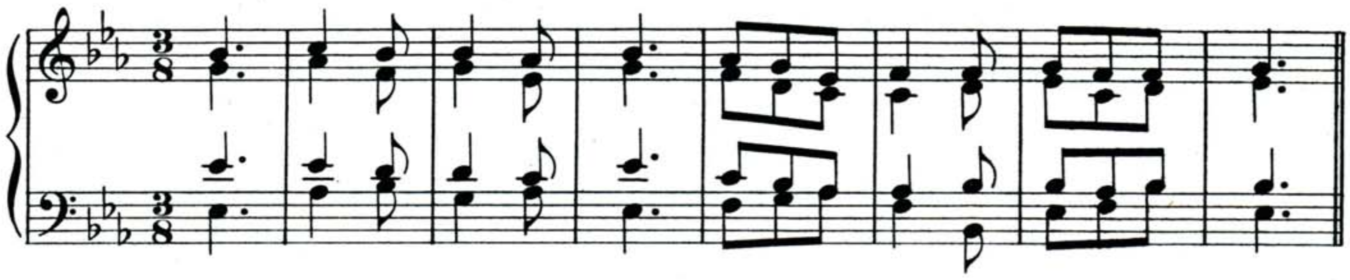
The last basic progression which you must understand is as follows: **WHEN THE BASS MOVES A SECOND, MOVE THE UPPER VOICES CONTRARY TO THE BASS.**



The picture diagram for this progression is:



Look at the example below using every progression you have had and observe the variety and smoothness. Notice the interesting melody in the soprano part.



WRITING LESSON

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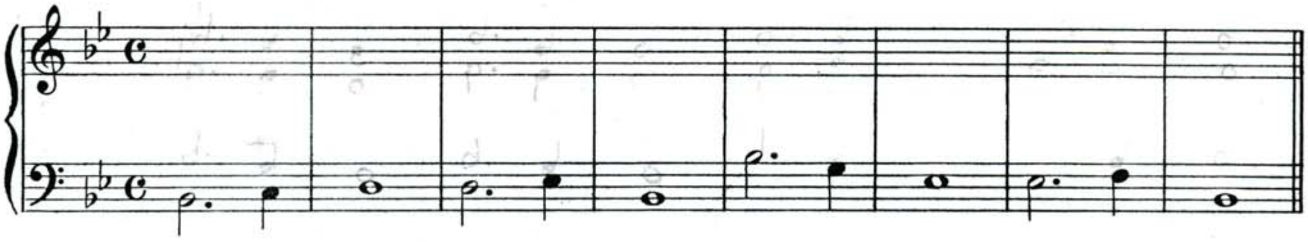

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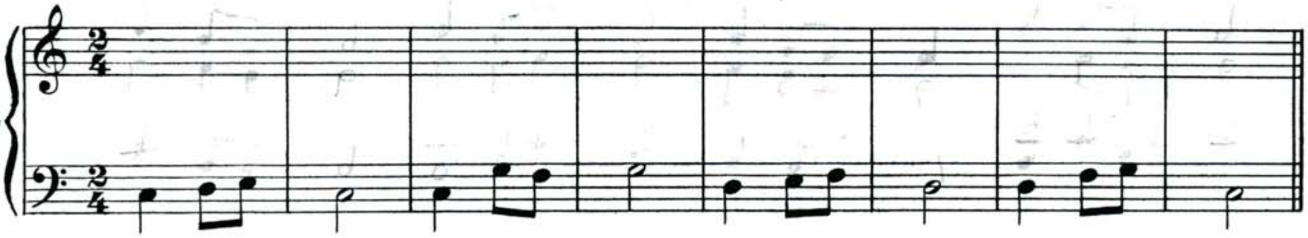

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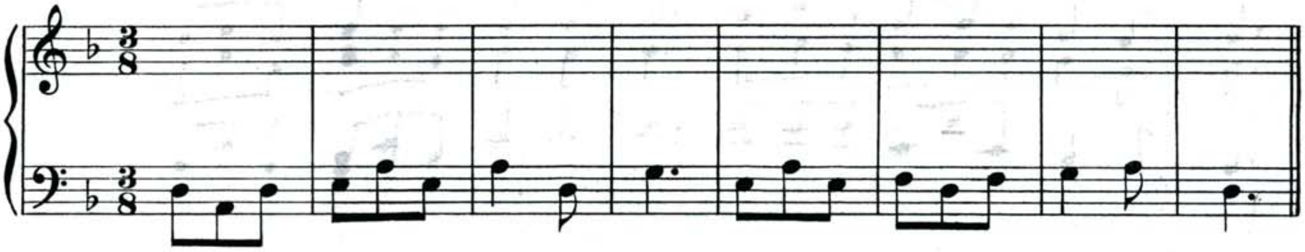

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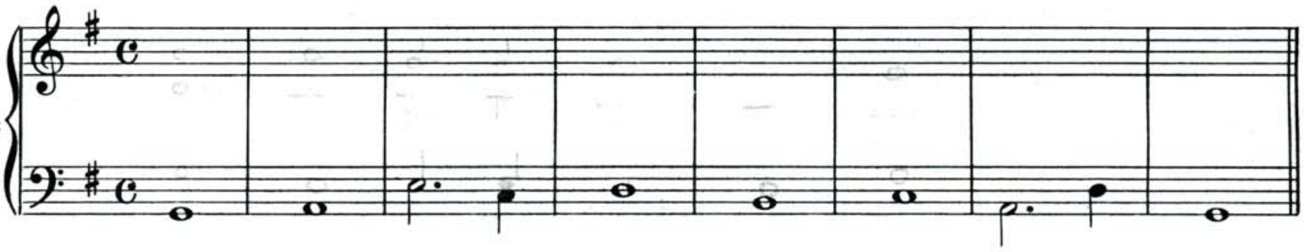

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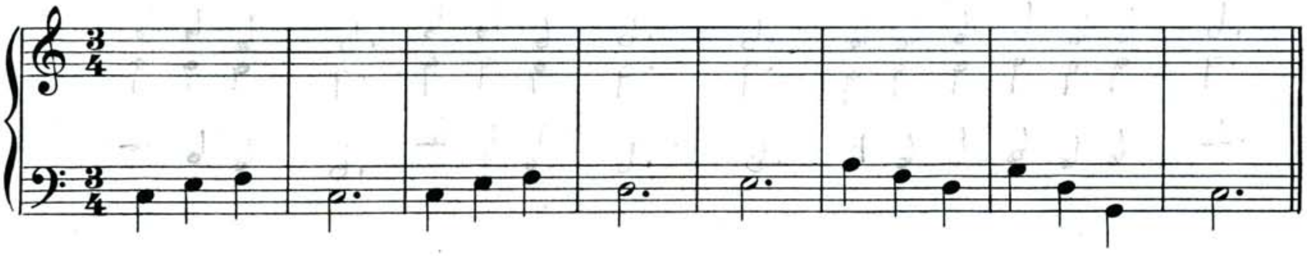

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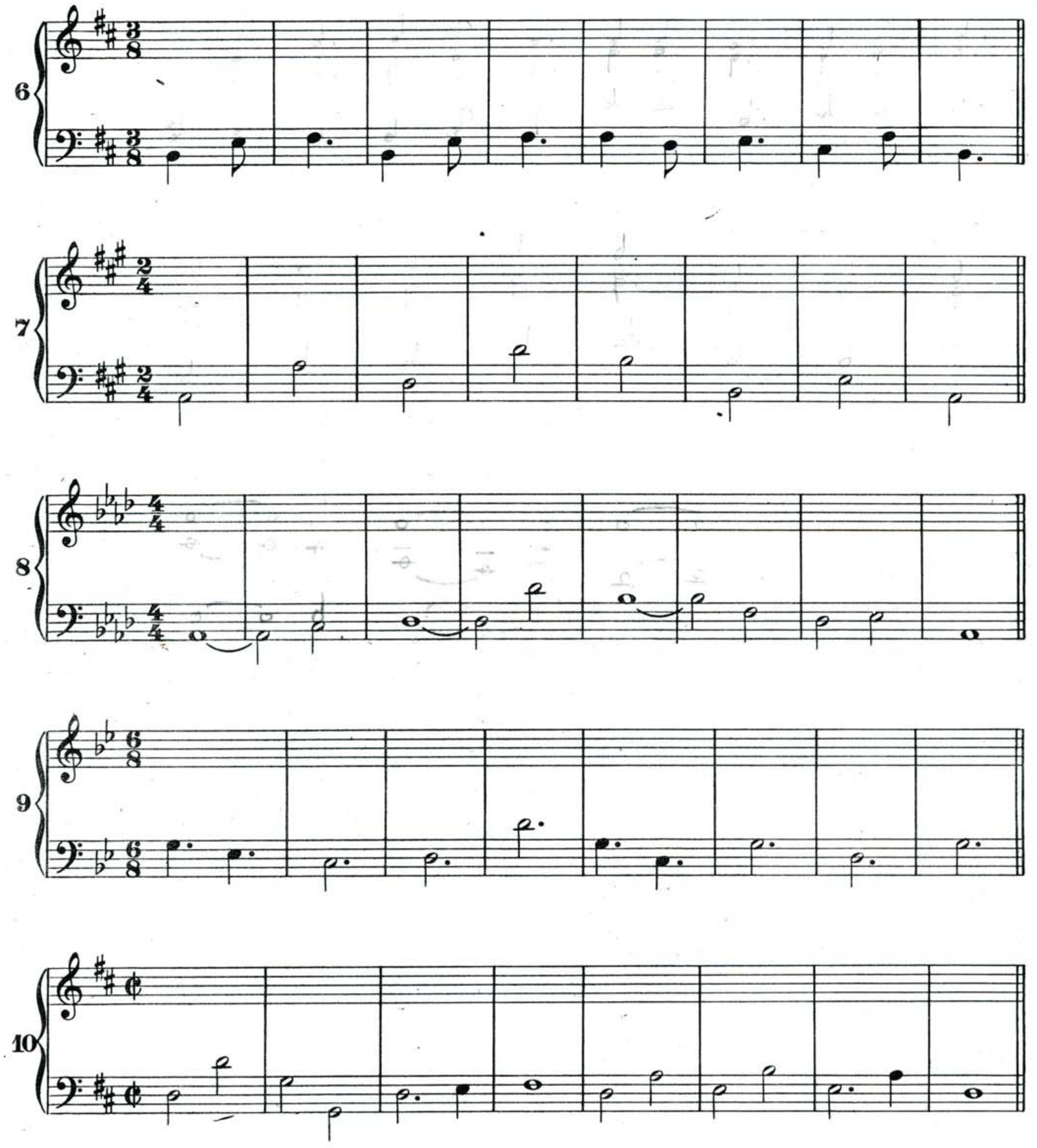
WRITING LESSON



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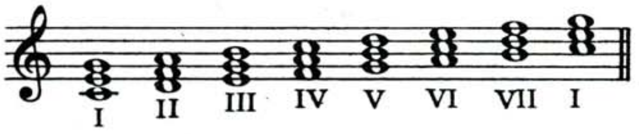
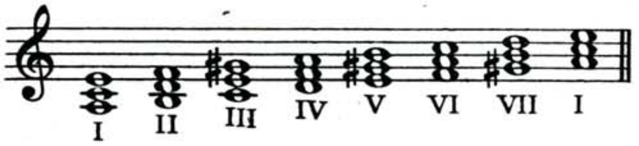
THE ROMAN NUMERALS

The lessons explaining the basic progressions said nothing about indicating Roman numerals for the chords. This was so you could concentrate entirely on learning the progressions. However, it is important that you place the correct Roman numeral under each bass note before you do a harmonization.

The chord built on the final bass note is always the tonic, or I. From it the Roman numerals for the other chords are determined: II, III, IV, V, VI, VII, as explained at the end of Lesson Two.

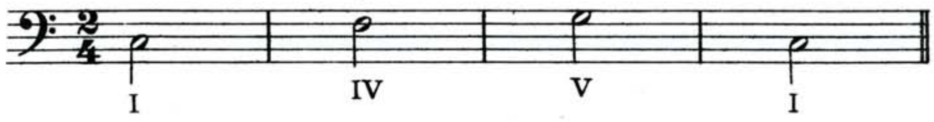
When you harmonize, identify each chord by its proper Roman numeral.

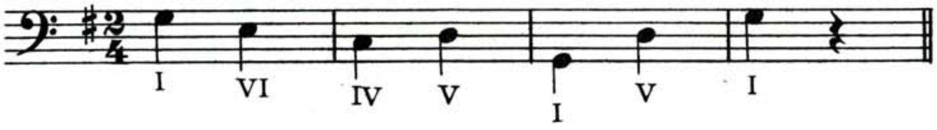


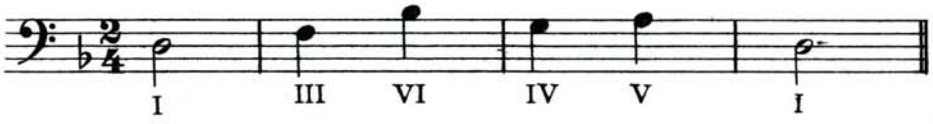


Remember your road map? As you enter each city, there is a sign post, or a welcome sign, identifying the city or town. In harmony, the Roman numerals identify the chords.

Here are several bass parts. The Roman numerals have been written under the notes. Look at these carefully, and then on separate music sheets write some original bass parts yourself. Indicate the numerals in each one.







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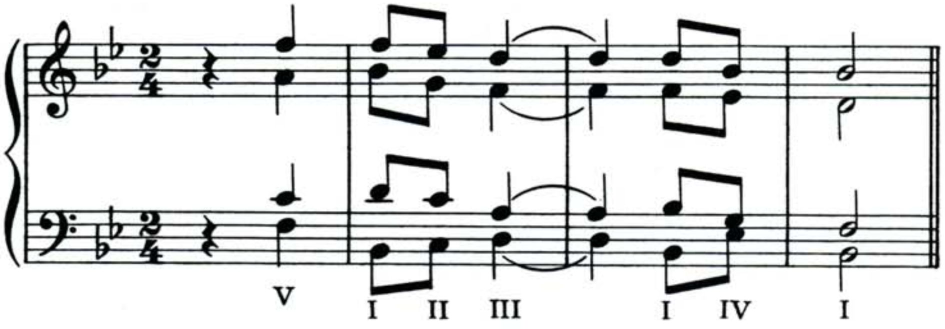
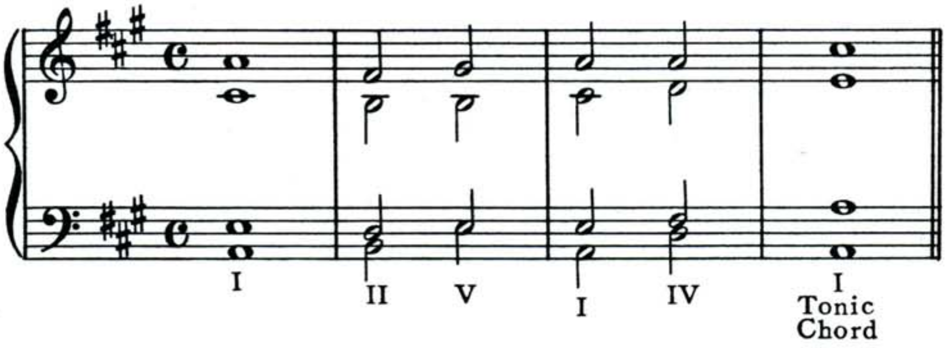
All pieces do not necessarily begin on the tonic chord, as most of them have in the Writing Lessons. Occasionally a composition will start with the V chord. Keep it in mind so that you won't be confused when you run across a harmonization like the following:

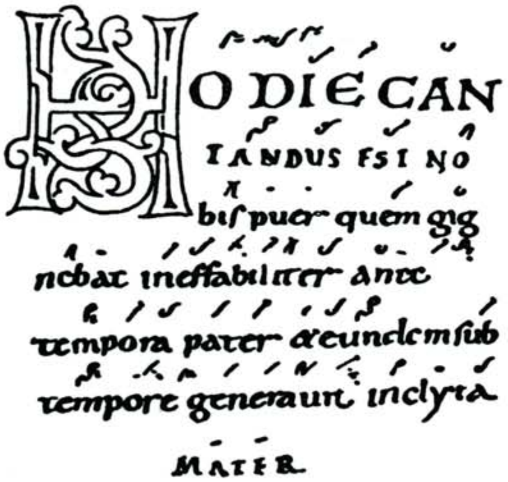


The example above gives you all the more reason for indicating the chords before you harmonize a bass. By so doing, you will know before you start to work out the progressions just where you stand harmonically. It is very easy to get into the habit of starting on the tonic chord. However, don't make the mistake of assuming what the first chord is until you look at the final bass note. This note is your clue to the whole harmonic structure. **NEVER BEGIN TO HARMONIZE UNTIL YOU ARE SURE WHAT KEY YOU ARE IN AND WHICH CHORD IS TONIC.**



NOTATION

In the early days there was no definite method of writing music. One player performed a piece and when another musician wanted to play the same piece, he had to learn it by imitation.



Old Latin manuscript accompanied by Neumes

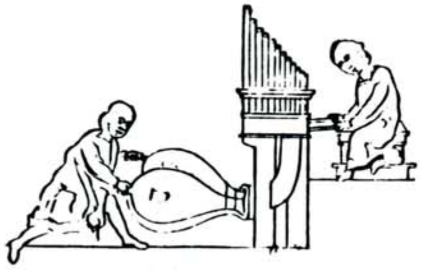
About the year 360 A.D., there lived a musician in Alexandria, Egypt, who devised a method of writing music. His plan was to write the letters of the alphabet in such positions that each one indicated a different sound. Thus, there were a great many individual note names that had to be considered.

Imagine the necessity for learning an individual note name for each tone. Think of that in comparison with the seven note names that you use in writing music.

NEUMES

By the ninth century, a system of notation, called *neumes*, had arisen. The word *neume* (newm) comes from the Latin, NEUMA, meaning song; and this, in turn, comes from the Greek, PNEUMA, *breath*.

By this method the words of a song were written out in full as they are today. Above each syllable there appeared a certain sign to indicate the approximate pitch to which that syllable was to be sung.



HUCBALD

Later there was another method—that of using lines like our staff, each of which would indicate a different sound. Words were written upon these lines much like our present day notes. This was better than nothing, but it was clumsy because there was no way of showing the length of time to hold each tone.

Hucbald, who was born in France about the year 840 and died about 930, is believed to have invented this system.

Progress was gradual and continuous in the formulation of a method of music writing.

Guido D'Arezzo (Gwee'doe Dar-et'so), born at Arezzo, Italy, about 995 and died in 1050, was a famous developer of musical notation. He introduced the staff of four lines, invented the system of Solmisation, and developed a method of teaching vocal intervals. Solmisation is a method of teaching the scales and intervals by means of the syllables *ut, re, mi, fa, sol, la*. The word is formed by combining two of the syllables—SOL and MI.

Franco of Cologne, who was born in 1190, is said to have invented the clefs, which defined the positions of the tones upon the staff and their duration.

In the fifteenth century, round notes such as ours were first used. Thereafter, the changes in music notation were few.

BE COMPOSED WHEN YOU COMPOSE

Writing music requires all your powers of concentration. Go off by yourself to a quiet and comfortable spot. Do not let any disturbing elements enter your thoughts. Put your whole mind and spirit into your work. It is easy to activate your senses when the job is habitual or automatic, but to study a subject which demands originality, imagination and adherence to basic forms is to accept not only a challenge but a responsibility. There is much bad music in the world along with the good. You as a student of the art must try to create, within the harmonics laws, not only music which pleases you but which will inspire those who hear it.

You are working with an emotional art. When you write, you must "feel" the power behind the tonal combinations. Listen as each chord merges into another and hear how each tone reflects the impressions of the tones surrounding it. However, do not let the music overcome you. You cannot afford to get lost in the realm of unreality. Write within the harmonic laws and your music will have the power of communication and expression for those who hear it. As a composer, you are a ruler on a throne in a realm of tonality. Rule with wisdom and originality.

MODERN HARMONY EXAMINATION No. 4

Covering Lessons 13-16

Name . . . .

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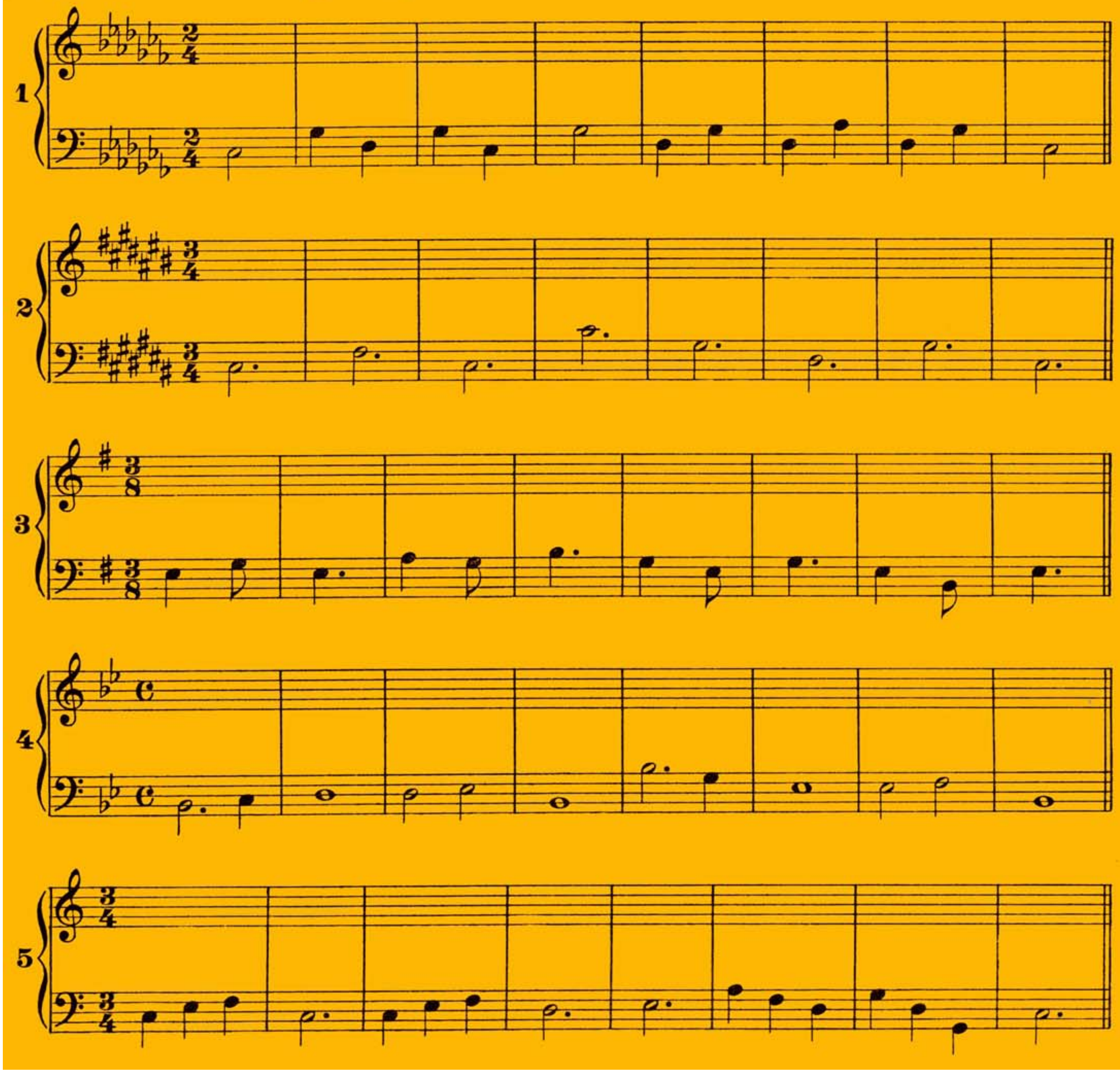
Fill in the above information. Send the completed examination to the U. S. School of Music, Port Washington, N. Y. The exam will be corrected and returned to you.

Harmonize the following bass parts.



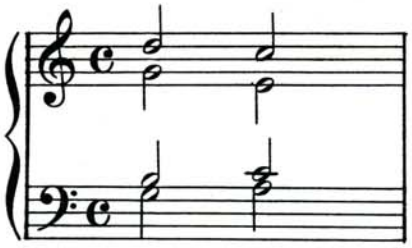
V TO VI IN MAJOR

How often the traveler deserts the main road to explore a shady lane or a dirt road that leads to some historic point of interest!

For the present, we suggest that you stay on the musical highway and adhere to strict voice leading in progressions. After you have had more experience in harmonizing, you will discover that sometimes the more usual progressions do not have to be used. In other words, you may leave the beaten track.

The next discussion introduces you to the most important exceptions to the basic progressions. Study them carefully as they will improve your writing.

You know the general rule when the bass moves an interval of a second. In the major, there is one main exceptional progression to this: WHEN V GOES TO VI THE THIRD OF V MOVES UP WITH THE BASS. THE OTHER VOICES MOVE DOWN.

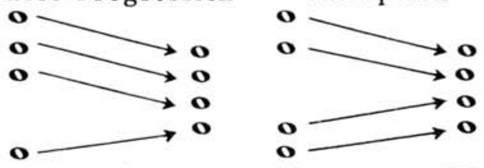


V VI

A good way to get this progression straight in your mind is to think of it as the usual progression when the bass moves a second, but in this case the third of the V moves up.

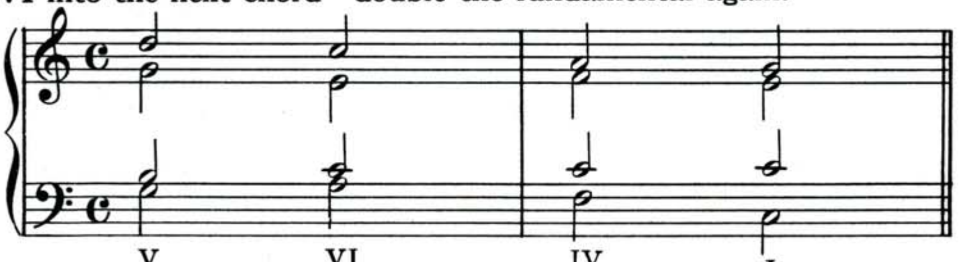
Compare the picture of the usual progression when the bass moves a second with the progression of the V to the VI.

Basic Progression Exception



Bass moves a second V VI

Notice also that in the VI the third is doubled, not the fundamental. For this reason you must be careful when you move from the VI into the next chord—double the fundamental again.



V Fundamental Doubled — VI Third Doubled — IV I Fundamental Doubled

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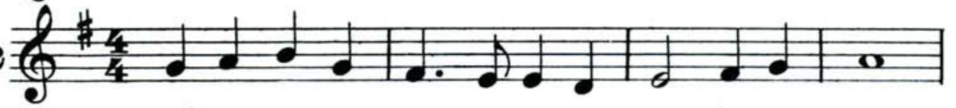
MELODIC PHRASES

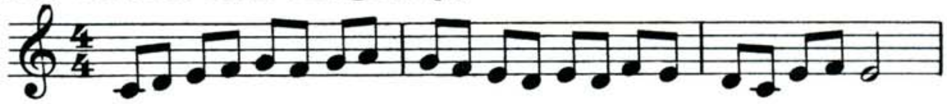
A phrase is a musical sentence. Just as a group of words placed in the correct grammatical order forms a thought in speaking, so a group of notes placed in logical order forms a musical thought.

Here are two four-measure melodic phrases. Both contain the same notes but in a different order. Decide which sounds better.

1

2 

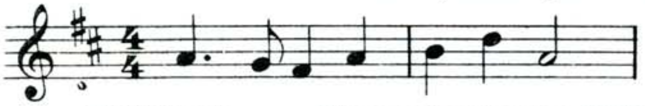
Of course, the second phrase sounds better. Why? A good melody does not skip too many times in succession. That is, several notes run in scale pattern, then a skip or two intervenes, followed by more notes in scale pattern. There is no rule for how many intervals to use in a progression; your musical taste will dictate what is preferable. For instance, the first melody above has too many skips. The melody below does not have enough skips.



It is more like a running passage or accompaniment, and does not possess the qualities of a good melody. There is also a rhythmic value of a melody. The rise and fall of a phrase is determined by the time value of the notes. As a phrase comes to an end, the notes lengthen in time value. This gives a feeling of momentary repose and preparation for the beginning of the next phrase.

These examples are not complete pieces because they do not end on the tonic chord. Therefore, you know that they are phrases that will be followed by other phrases until the feeling of a complete ending is established with the tonic chord.

A melody may be any length although the most common melodies are usually eight to sixteen measures. A feeling of repose comes at the end of measures 4, 8, 12 and 16. A two measure phrase is also possible in some rhythmic patterns.



*In writing melody alone, notes or below third line have stems up; notes on or above third line have stems down.

Remember that a melody is the "free" part of a composition and need not be bound by any definite rules. The suggestions contained in this lesson will help you to write a simple melody that will please the ear. From there on you will expand to longer, more original and liberal melodies.

Write four eight measure melodies and four sixteen measure melodies. Make them end on the tonic. Use various rhythmic patterns for interest and the rise and fall of MUSICAL PHRASES.

WRITING LESSON

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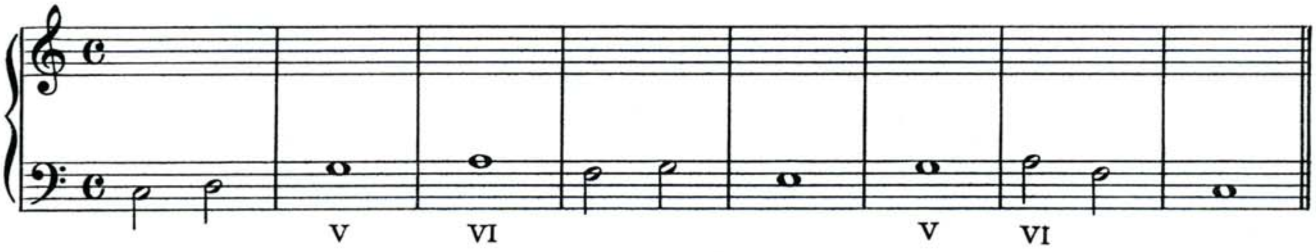

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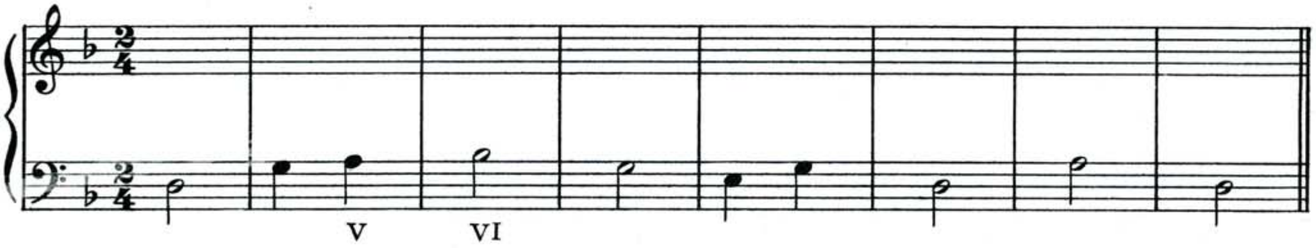

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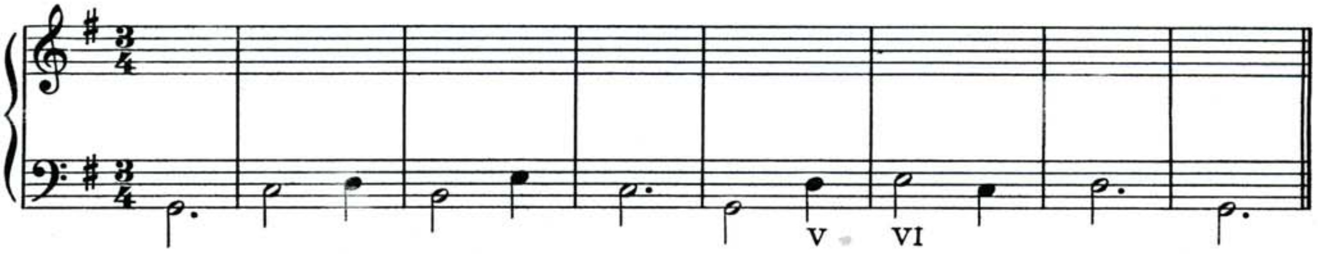

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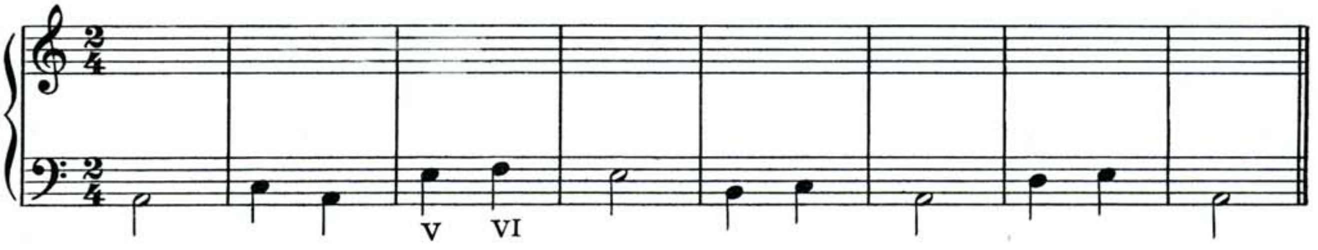

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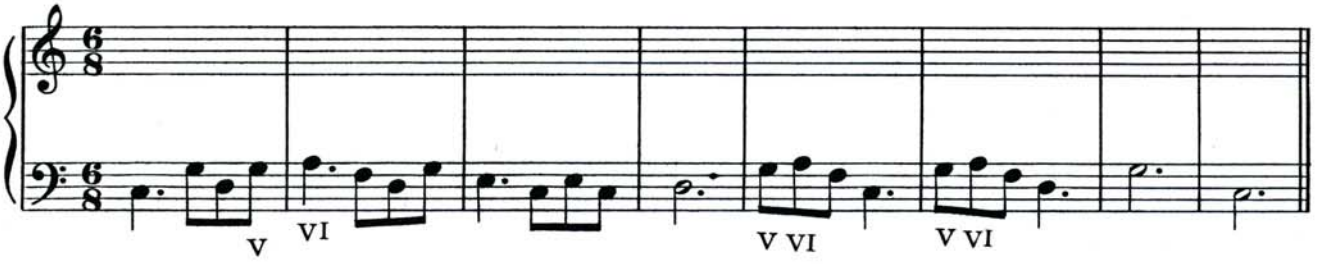

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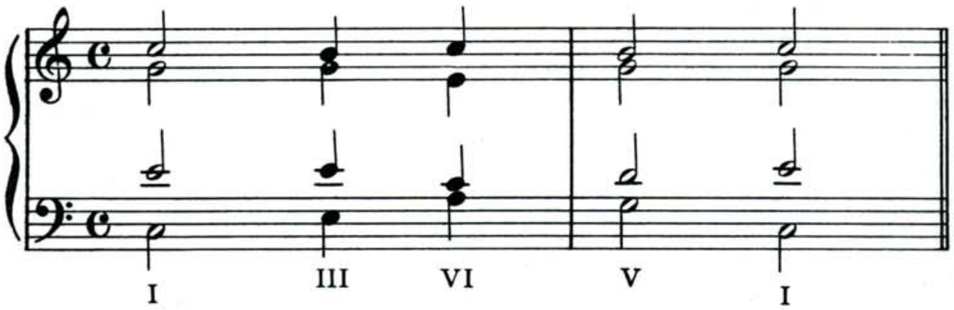
VI TO V, AND II TO V

In the last lesson you found out that voices do not always follow the usual progressions. You saw one example of this in the V to VI in the major keys.

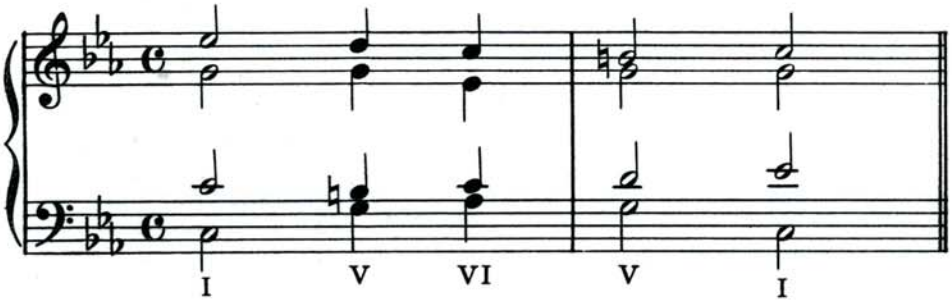
Sometimes the VI will move to V also. In this case you must double the third in the VI before moving into the V.

WHEN THE VI GOES TO THE V MOVE THE DOUBLED THIRD IN OPPOSITE DIRECTIONS AND MOVE THE OTHER VOICE AGAINST THE BASS.

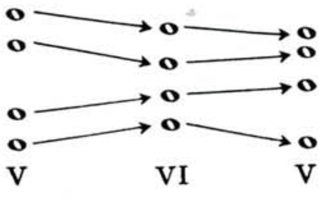


You must be careful to make sure that you lead the voices into the VI so that the third will be doubled in the VI. Look at the above example again to see how this is done.

You now understand how the V moves to the VI, and how the VI moves to the V. *In minor keys the same rules apply*. Here is an example in C minor:



Be sure to practice drawing the diagrams for these progressions.



You remember that there are two possible progressions when the bass moves a fourth. However, IN MINOR WHEN THE II MOVES

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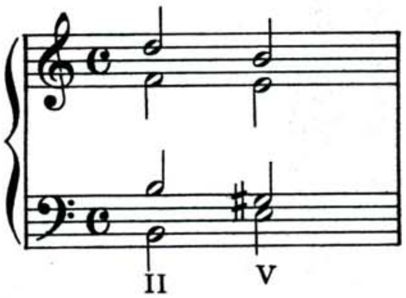
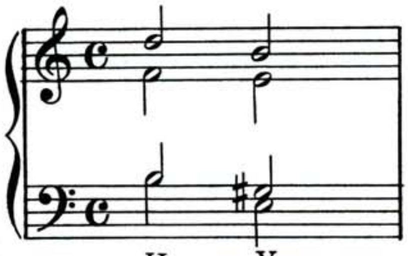
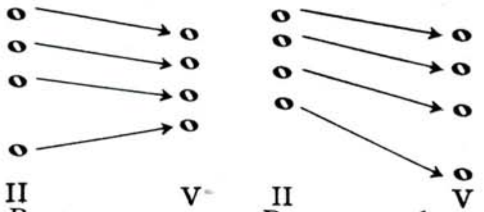
TO THE V, MOVE THE UPPER VOICES AGAINST THE BASS. This is the second possible progression when the bass moves a fourth. (Incidentally, use this progression in major, too, when the II goes to the V.)



Obviously, when II goes to the V, but the bass moves down a fifth, the upper voices will have to move down. In other words, in this progression all voices move down.



Look at the diagram of the possible progressions when the II goes to the V.



In deciding whether to use a regular progression or a special progression, try both and determine which sounds better with the chords that precede and follow. Use a regular progression when a strong chord is needed. Use a special progression when a new tonal coloring is desired, or the voices move more smoothly than in the regular progression. Develop a critical sense and apply it to your own work.

Have you noticed a new awareness and grasp of the music you play on your instrument? When a player becomes aware of the structure and form in music he has drawn nearer to being a musician.

WRITING LESSON

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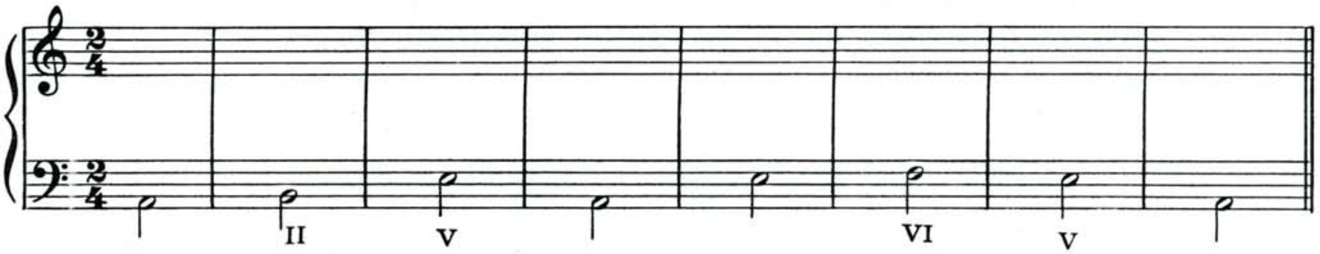

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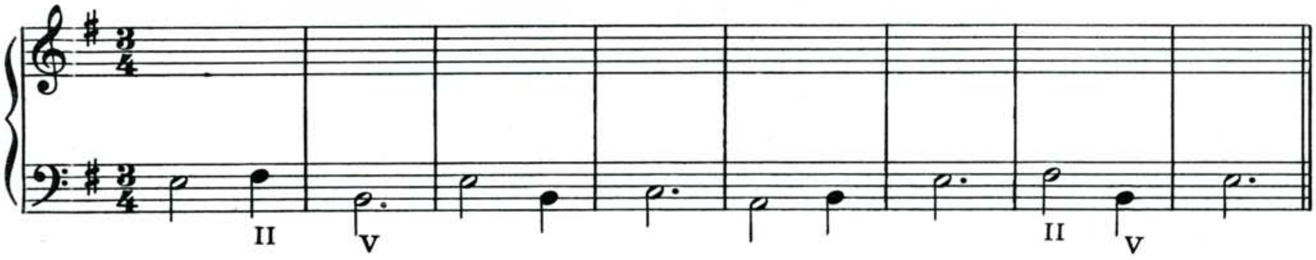

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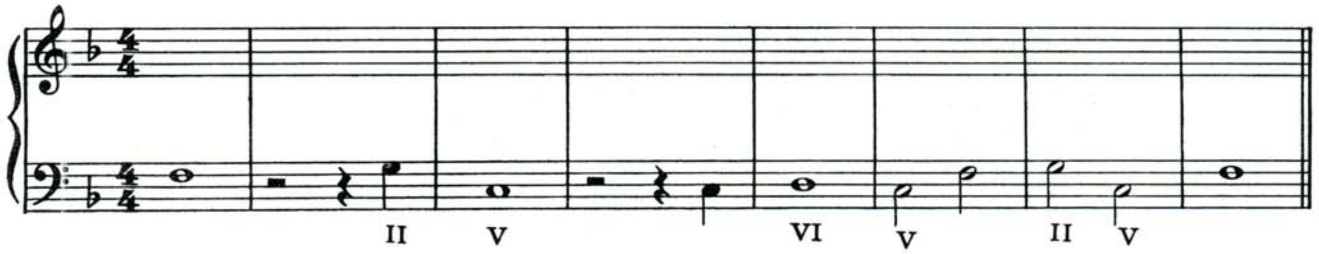

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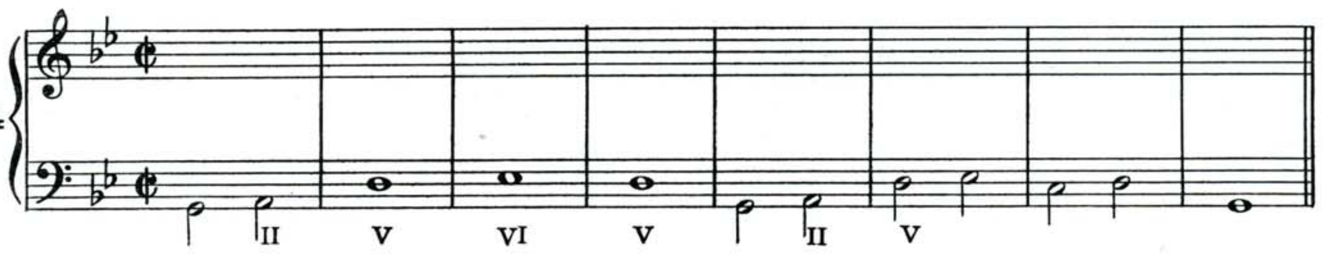

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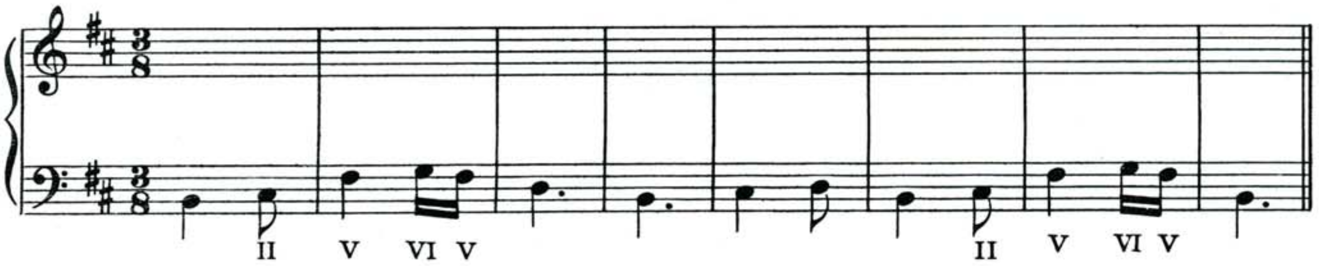

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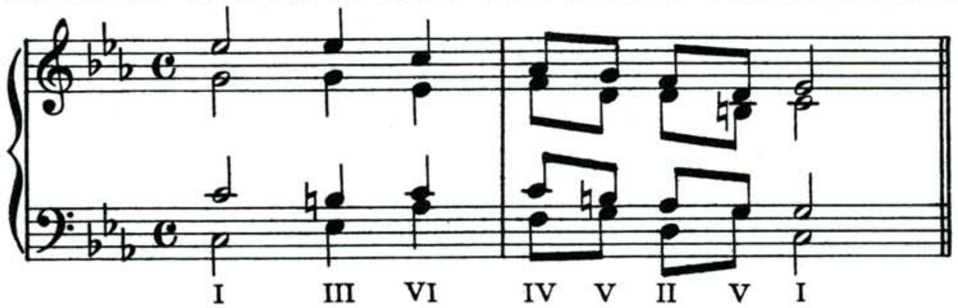
III TO VI IN MINOR

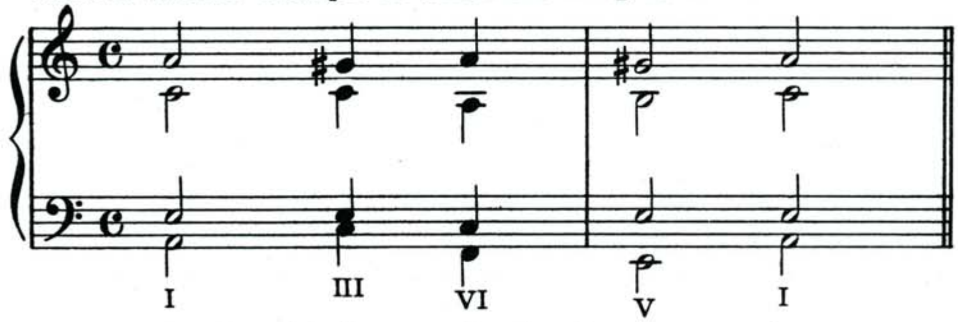
A very good progression is from III to VI. In minor this progression requires special treatment.

WHEN THE III GOES TO THE VI IN MINOR, MOVE THE FIFTH OF THE III UP AND THE OTHER VOICES DOWN.

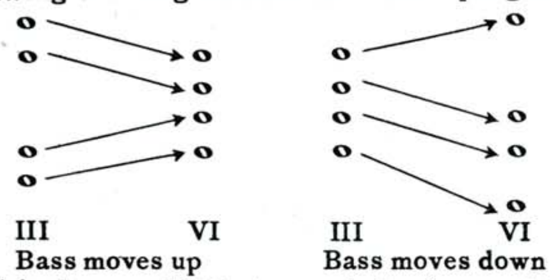


Here again the third is doubled in the VI. It is important then to lead the voices from the VI into the next chord so that the fundamental of this succeeding chord will be doubled.

Here is another example in which the III goes to VI:



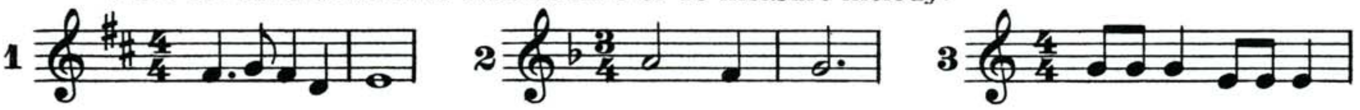
Practise drawing the diagrams for the above progressions.



You learned in Lesson 17 that a melody does not have too many successive skips, contains rhythmic interest, and encourages repose at the end of phrases which could be on measures 2, 4, 8, 12, or 16.

Phrases are divided into *motives*. A motive is very short, containing only two, three, four or five notes, although there is no rule concerning a set number. In longer phrases, the motives become longer in comparison.

Here are several motives that fit an 8 or 16 measure melody.



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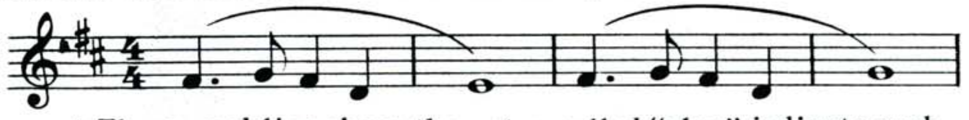
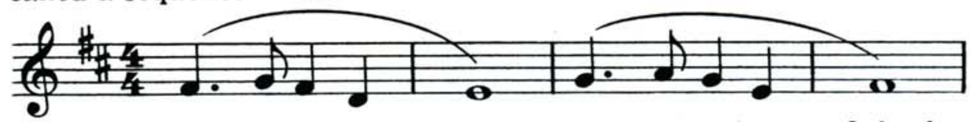
Let's see how these motives can be developed or extended.

Consider the first one. It could be repeated but should end with another note that would lead harmonically to a new motive.

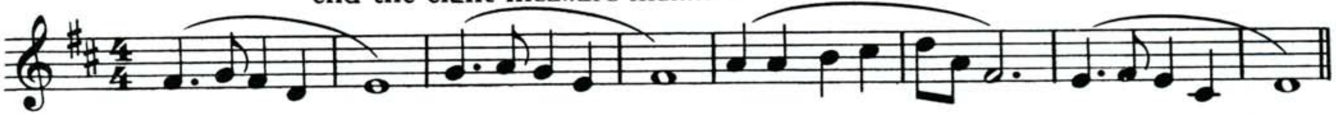


* The curved line above the notes called "slur" indicate each motive or phrase.

It could also repeat exactly by starting on another note. This is called a sequence.

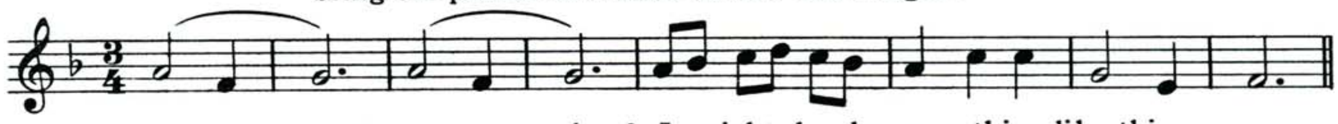


In extending this to eight measures, you need a change of rhythm or this motive will become monotonous. Therefore, make a new motive and repeat the first motive on an entirely new set of notes to end the eight measure melody.

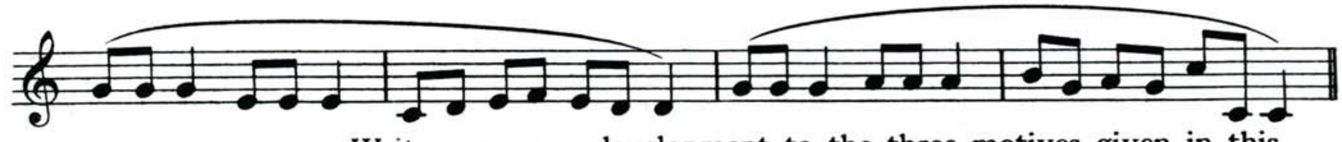


Notice how there is a repose at the end of every two measures. Observe how the repetition of the motive on different notes creates coherency and yet avoids monotony. See how the third phrase gives a fresh approach when the original melody is repeated for the last time.

Look at motive 2. It can be repeated as is. Then, due to its containing rather long valued notes, make your next motive move with notes of faster value. Repeat the first motive again on other notes that will bring the phrase to a close on the tonic degree.

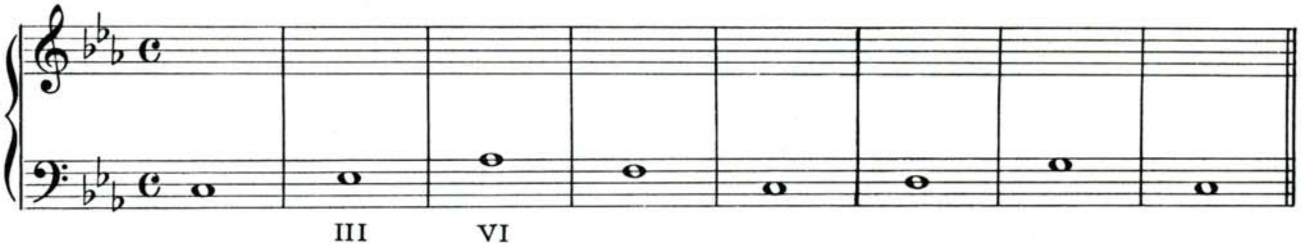


Move on to motive 3. It might develop something like this:



Write your own development to the three motives given in this lesson. Go on to 16 measures after you have the feel of 8 measures. Write as many melodies as you can. Then make up several motives and develop them. You will be surprised to discover that you can create a good original melody.

WRITING LESSON

1


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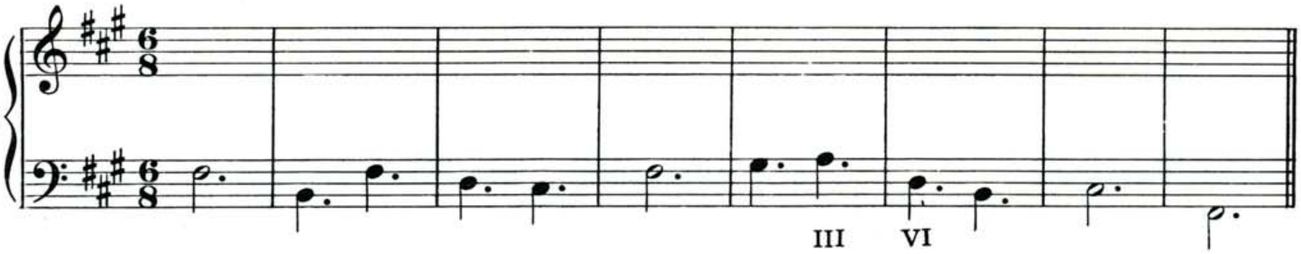

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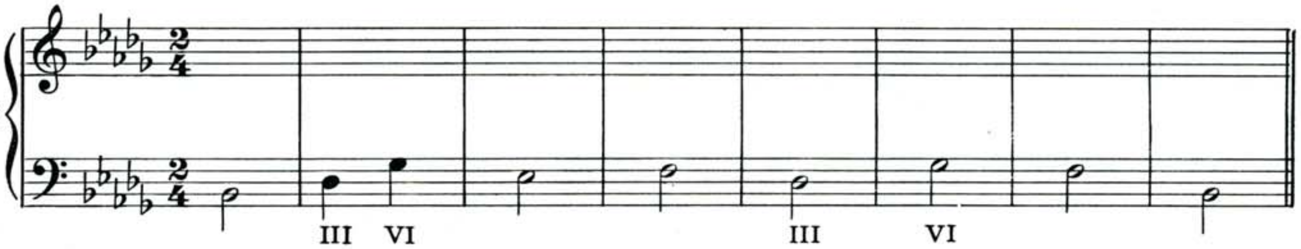

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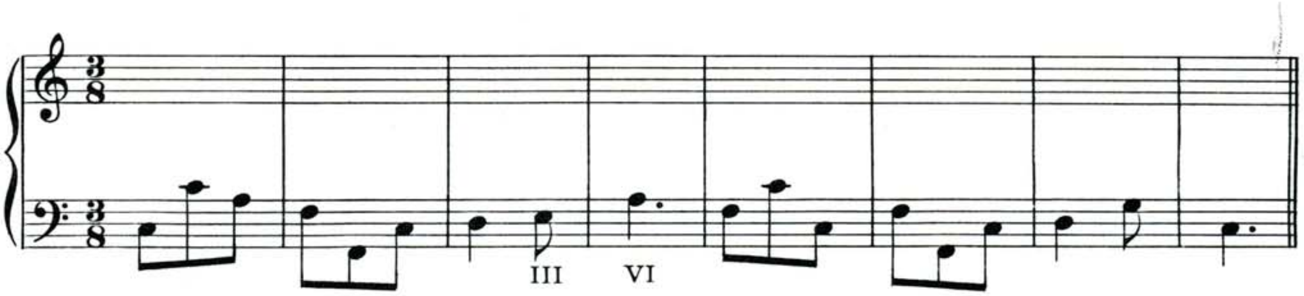

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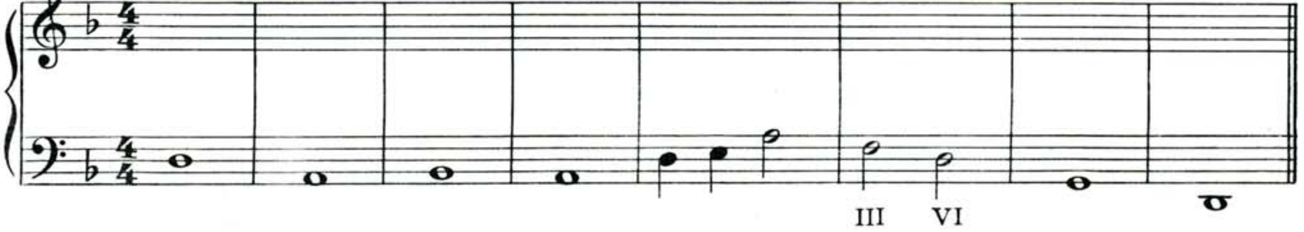

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Check this writing lesson by going over it several times yourself.

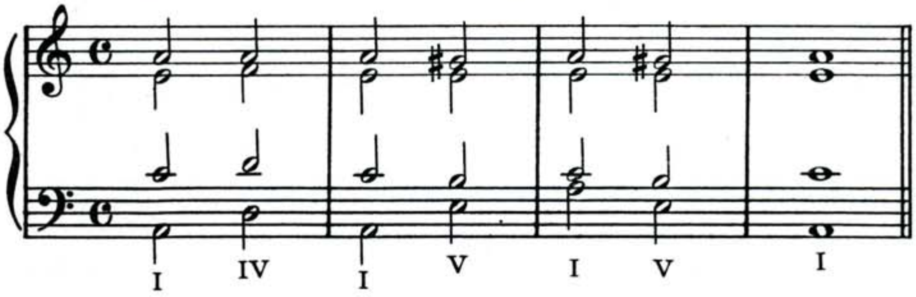
THE POSSIBILITIES OF HARMONY

Harmony is not concerned only with four part harmony; it involves all types of music.

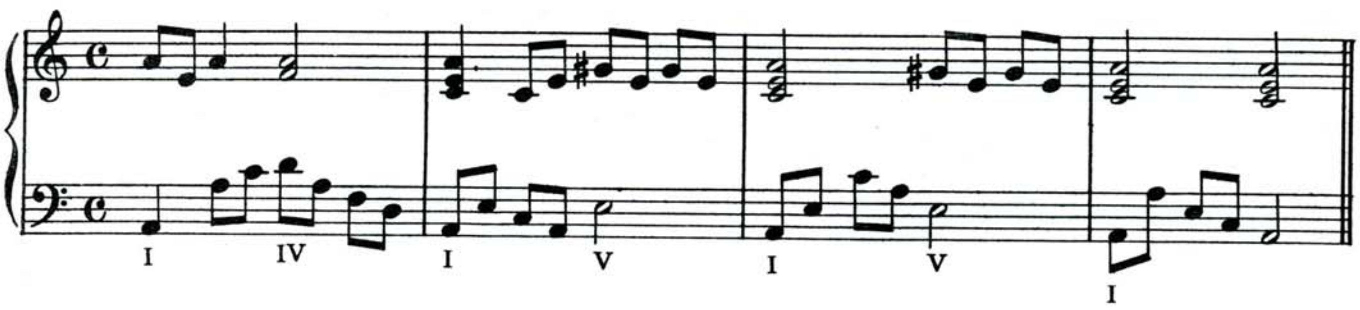
So far in this Course you have been learning the fundamental voice leadings in the basic progressions. Naturally to learn them well you must first understand them in their rudimentary form. That is why all the examples are in simple four part style, like hymns. Actually hymns are good four part harmony with a distinctive melody. It would help you immensely to play several hymns and to figure out the harmony. Of course, you will find several unfamiliar progressions. Many other progressions are taken up in the second half of this Course.

With the knowledge you've already gained, and what you will learn in the following lessons, you should be able to analyze considerable music of various types, and also apply what you know in different styles of composition. Each new step applies to thousands of harmonic situations; you are sowing more broadly than you think.

For example, see how easily you can transform a simple four part



phrase into an interesting, rhythmic piano piece:



Observe how you can play a chord one note at a time and create a running accompaniment. Divide the notes of the chord so that they equal one or two beats. Assort them in various rhythms and be conscious of the melodic line. By the trial and error method, you will eventually have a pleasing piece built entirely from a four part voice progression.

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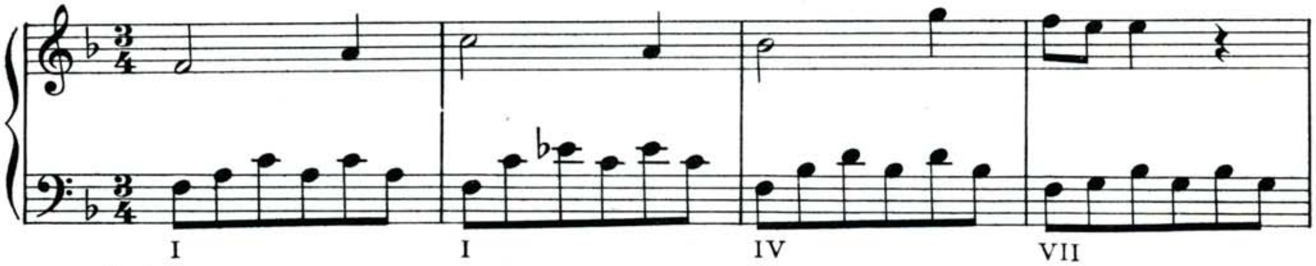
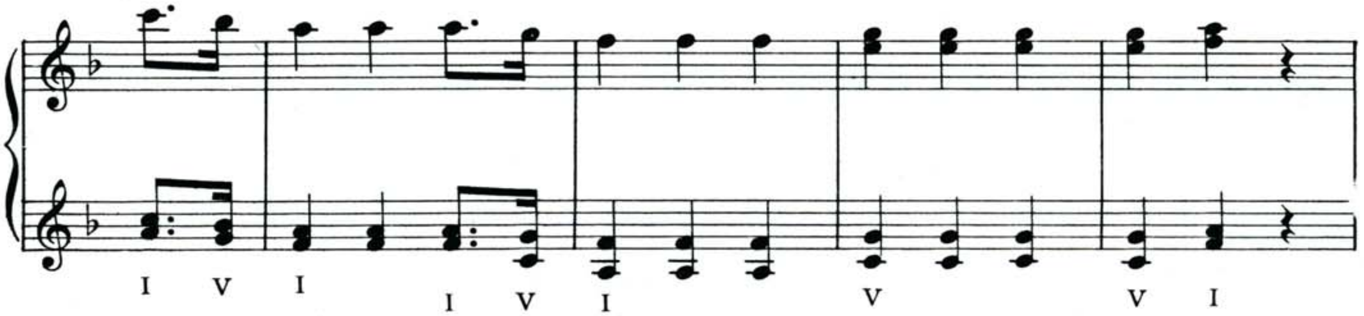
Here is part of a Mozart Sonata. See how the simple rules of harmony are used in its construction:

Sonata by Mozart



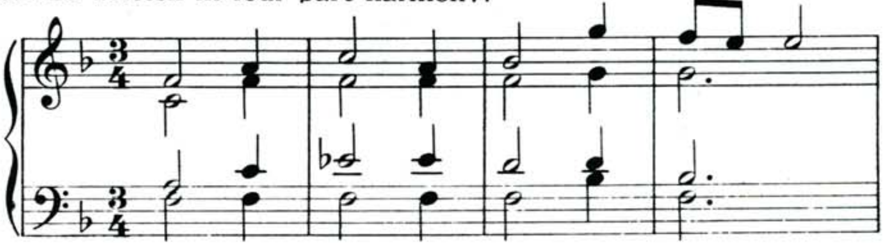
1st four measures



*measures 12 to 16

* The one beat measure is called an upbeat. The remaining two beats will be found at the end of the part or section of the piece.

On the previous page, you saw how four part harmony can be transformed into a rhythmic musical section of melody and accompaniment. Observe the opposite procedure below. Mozart's Sonata can be written in four part harmony.

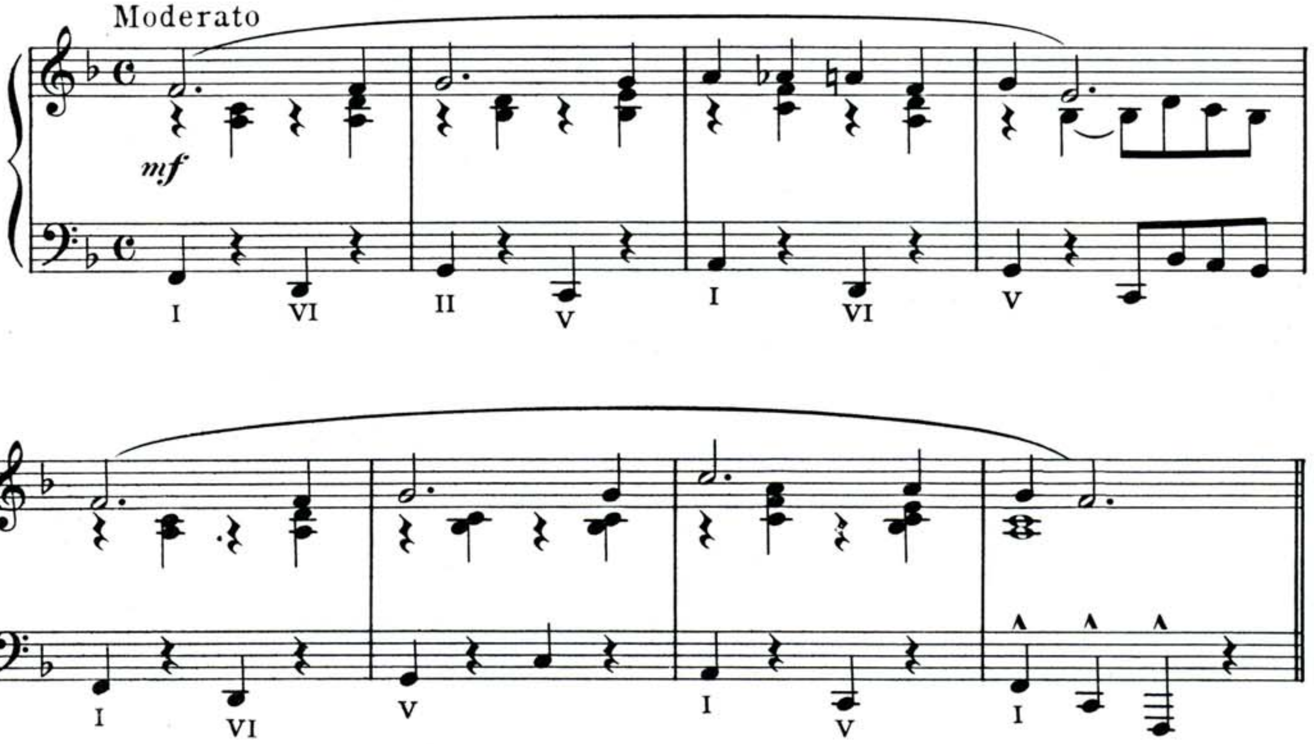


1st four measures

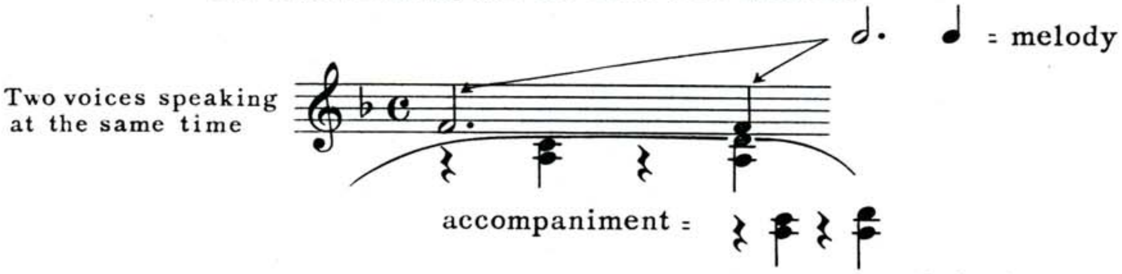
This is called arranging and you will learn more about it later. For the moment, it is important that you analyze piano pieces and try rewriting them in four part harmony. Copy the melody first. Then fill in the bass and finally add the alto and tenor. Observe all the rules for harmonic progressions.

When analyzing a piece, look at the general structure. Do not try to label each single note but rather consider groups of notes that belong to one chord. See the notes collectively, not a single note following another note.

In the next few lessons you will learn to harmonize melodies. Naturally it is important that you learn to deal with this type of work in its skeletal form: four part harmony. Later on you may wish to apply the harmonic progressions in more modern style. This is a simple tune of the popular type. Observe what conventional harmony is used.



Hold each note for the number of beats it should get according to its time value. Some notes will hold while others move on at the same time. A rest placed on the same beat with a note means that one voice is resting and the other voice speaking.



The musical notation for classic and popular music is the same. That is, both forms are written on the Great Staff and counted alike. However, the style of writing, harmonic effects and rhythmic patterns differ. You will learn to recognize these comparisons, so your writing in both forms will be clearly defined and understood.

CADENCES

A musical composition can start on the tonic chord, progress through several other chords and come to an end on the tonic chord with which it began. When listening to any piece of music, you can always tell when the end is coming. There is a harmonic warning.

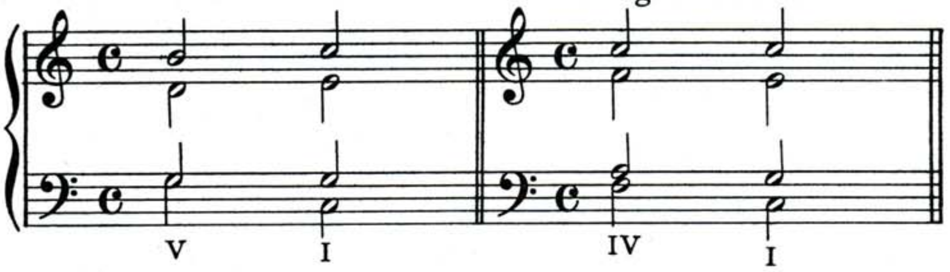
This harmonic signal of an ending is really a "coming to rest" or reposing which might be described as the falling of the music. A composition begins with a tonality or decided key feeling; it rises and falls from one chord to another and finally it begins to fall with more decision until it comes to rest on the tonic key with which it started.

Poetically, it might be illustrated with a bird that leaves its nest, soars into the sky, rises and falls as it travels and then returns to the nest from which it started.

Centuries ago when the scholars of the church first began studying the laws of music they observed this natural falling of music at the end of a song or hymn. As you know, Latin has always been the language of the church, so it was quite natural that when the monks tried to decide on a name for this tendency in music, they would choose a Latin word to describe it. In Latin the verb *cadere*, means to fall, so the scholars described the *falling* of music by the word cadence.

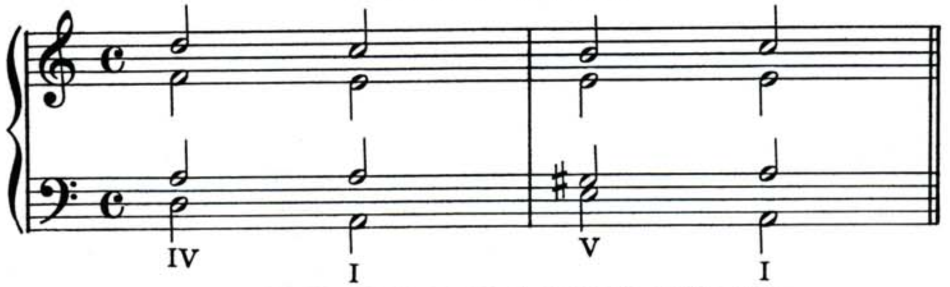
The chords that are used with the tonic chord to form cadences are chiefly the V and IV chords, one falling a fifth and the other falling a fourth to the tonic chord.

Authentic Cadence Plagal Cadence



V to I is called the authentic cadence, and IV to I is called the plagal cadence. When these two are combined, one occurring after the other, the result is a combined cadence.

Combined Cadence



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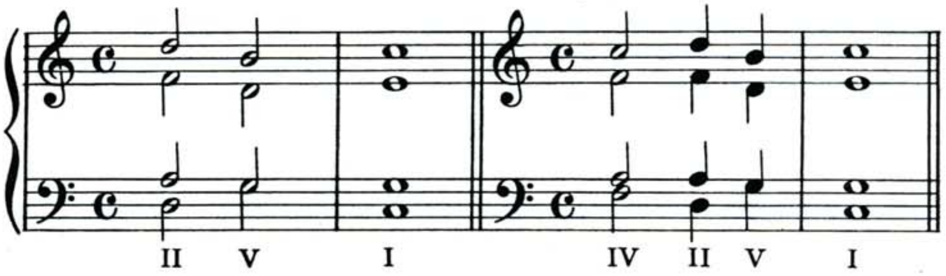
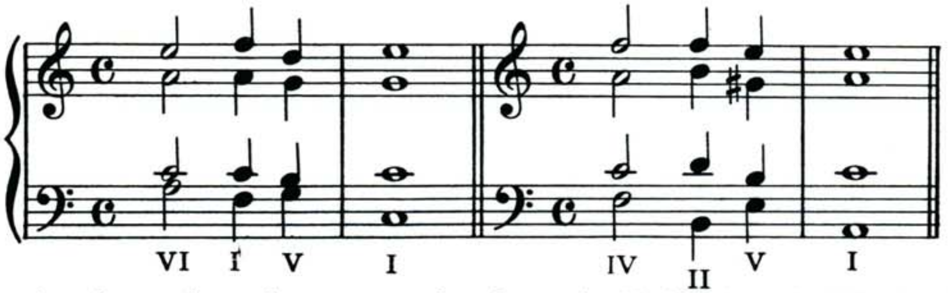
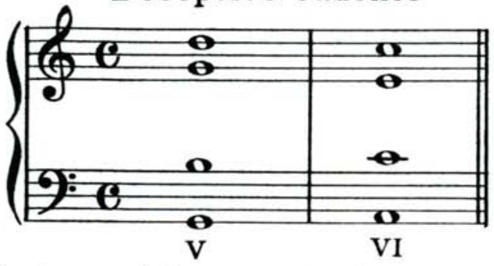
The II and the VI chords are often used along with the V or IV chords to form cadence groups; in such cases the falling is not just the last two chords but the last several chords. Various combinations of the V, IV, II, and VI are used before reaching the tonic.





Another cadence is a progression from the V chord to the VI chord instead of the I chord. This cadence is called the *deceptive cadence*. You will find this cadence during the course of the piece, but never at the end. A composer always finishes his piece with a I chord.

Deceptive Cadence

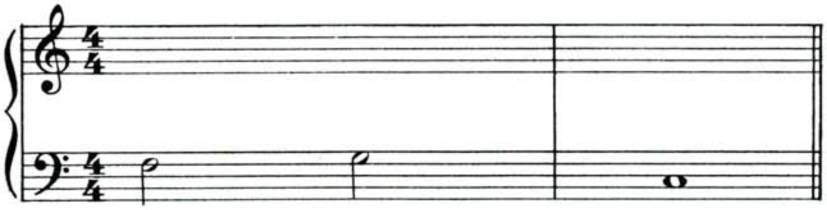


When you begin harmonizing melodies in the next lessons be sure to remember these cadence groups described above. In working out the bass line for any melody it simplifies things to know that the piece usually begins and ends on the tonic, and that the last few chords are a cadence group.

In this lesson you have learned mainly about cadences which occur at the end of a composition. Later you will find out about cadences which occur throughout a composition as well. Generally speaking, cadences occur every eight measures, but many pieces include cadences every four measures. Music is like the ocean waves, rising and falling. The fall of each wave may be compared with the cadence at the end of each musical wave of four or eight measures.

WRITING LESSON

Harmonize and label with correct Roman numerals the following cadences:

1


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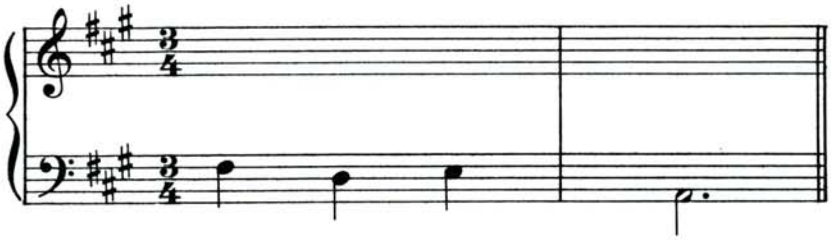

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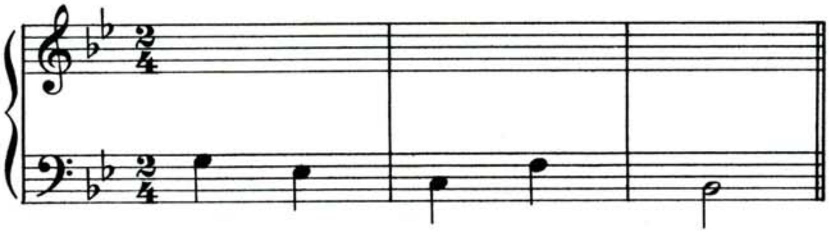

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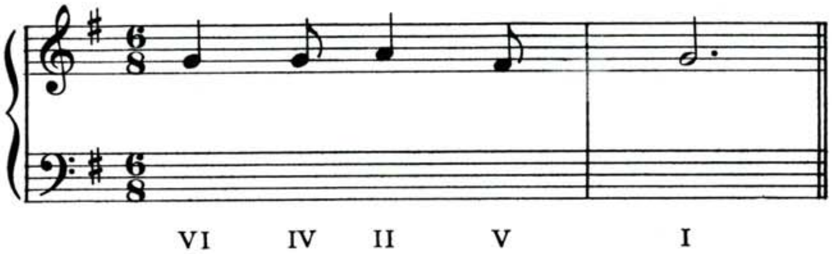

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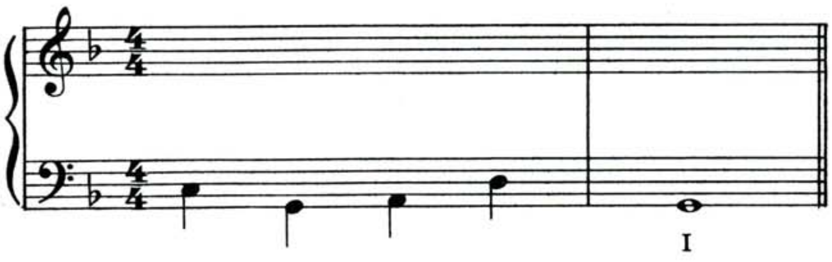

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MODERN HARMONY EXAMINATION No. 5

Covering Lessons 17-21

Name -

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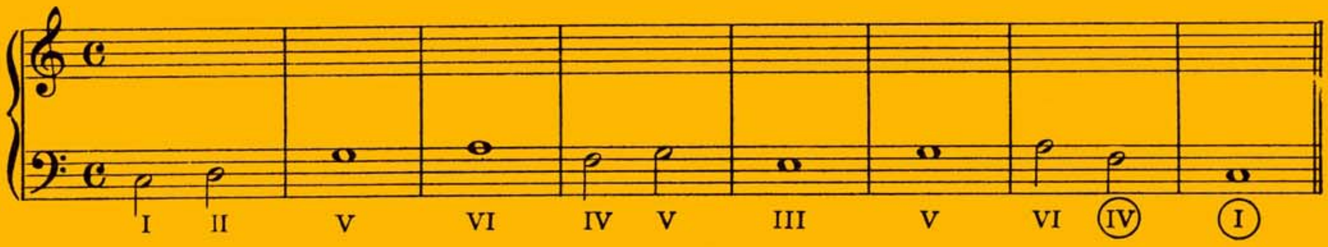
Fill in the above information. Send the completed examination
to the U. S. School of Music, Port Washington, N. Y.
This exam will be corrected and returned to you.

Harmonize the following bass parts. Name each chord and circle the Roman numerals of the cadence chords as in the first example.

1


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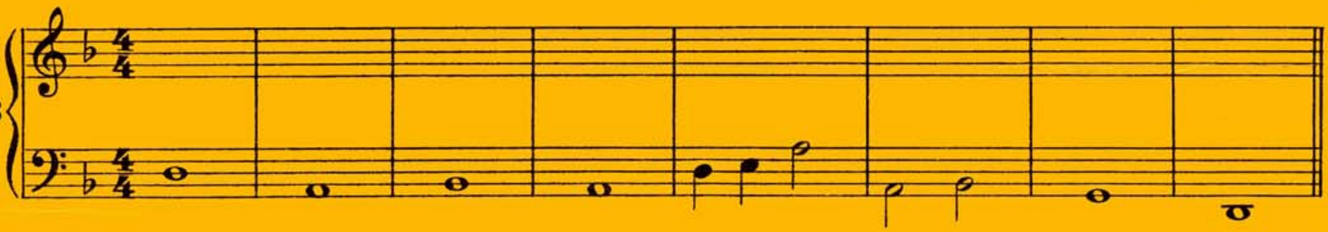

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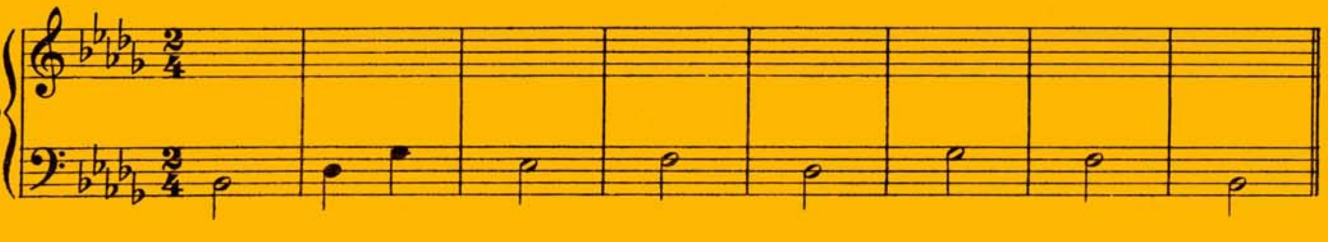


STRONG PROGRESSIONS FROM ANY CHORD

Throughout the Course you have been learning the correct progressions of each voice from chord to chord. The bass has always been written first and the upper voices filled in. Thus you know by actual practice that good harmony is largely a matter of a good bass.

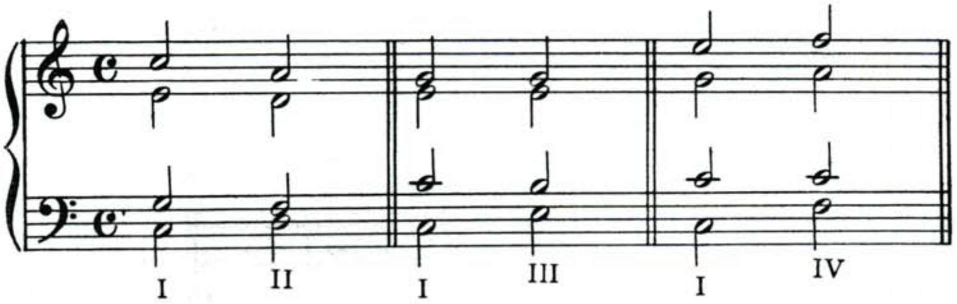
In the next lessons you will harmonize melodies. What is a melody? You've seen that a melody might be the upper part of a harmonization to a good bass. To a large extent this is true, but melodies are not usually written in this way. Most composers write the melody first, and then figure out a good bass upon which to construct the harmony.

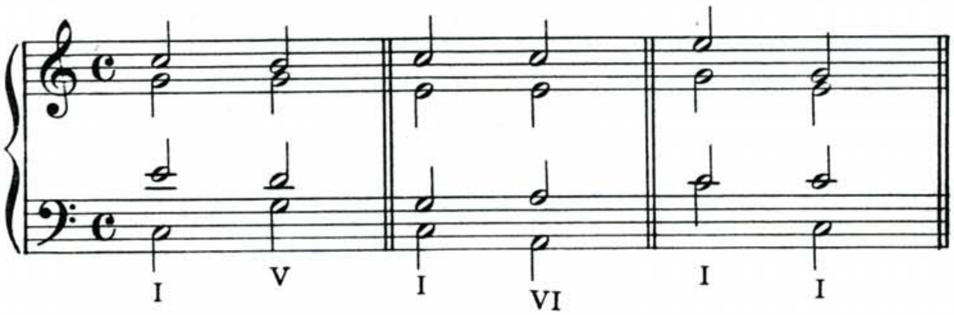
However, a good melody springs from the mind of a composer who has an unusual sense of harmony. Furthermore, all musicians realize the fundamental importance of a good bass. So if you are to harmonize melodies you must know which bass notes to use with the melody notes.

One of the most important phases of harmonizing a melody is determining the best progressions from one chord to another as the upper melody line changes. For this reason this lesson is devoted to explaining the strongest progressions from any of the chords. Study these and learn them well, for knowing progressions will save you much time in your later melody harmonization.

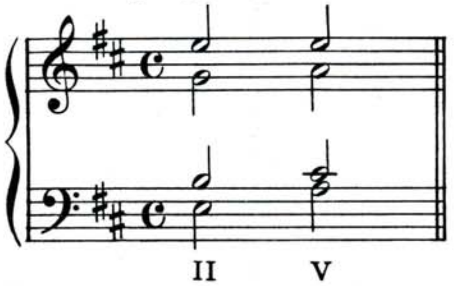
Each chord beginning with I is taken up separately, and the strongest progressions from it are shown in the order of their importance.

The I can progress to any chord:

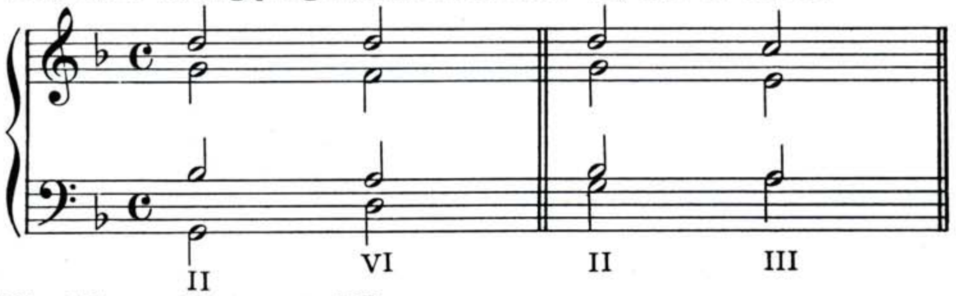




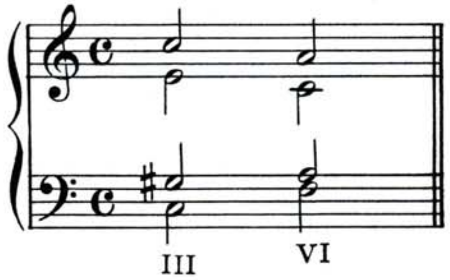
The best progression from II is to V:



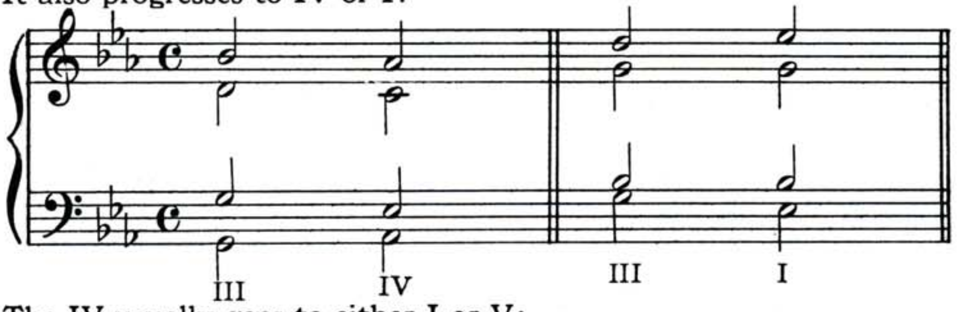
Two other strong progressions are: II to VI, and II to III:



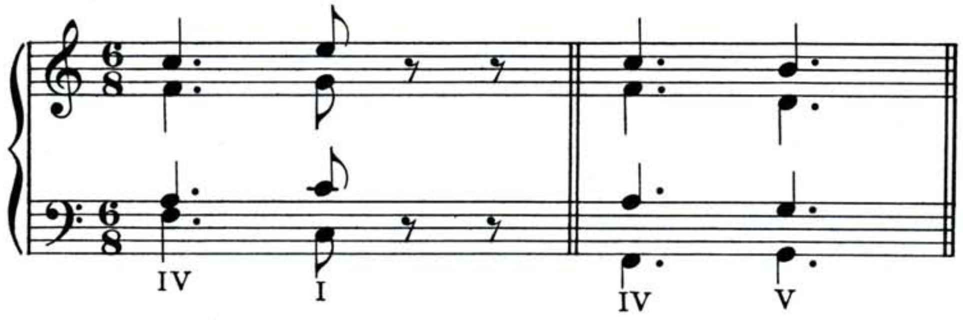
The III usually goes to VI:



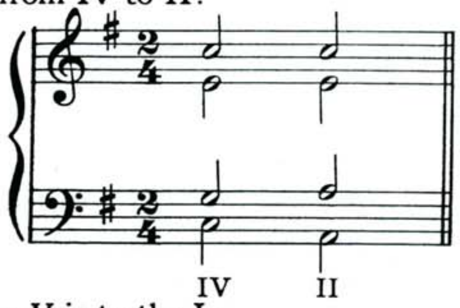
It also progresses to IV or I:



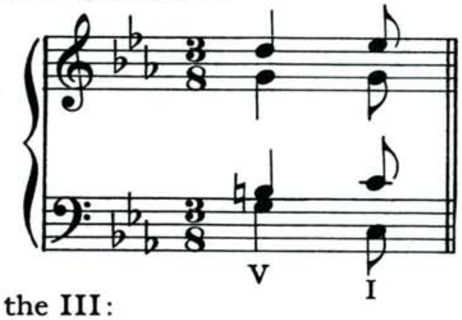
The IV usually goes to either I or V:



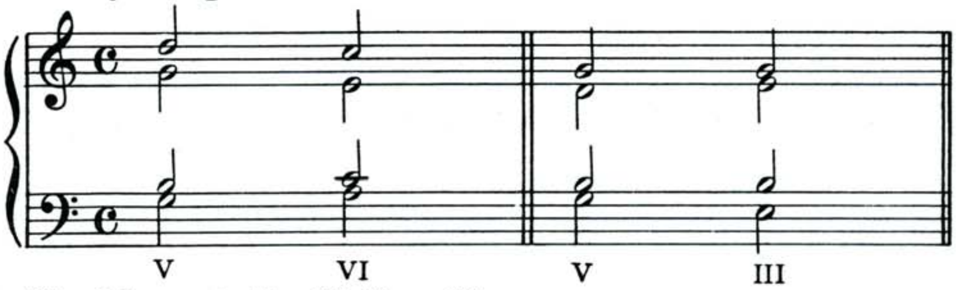
Another good progression is from IV to II:



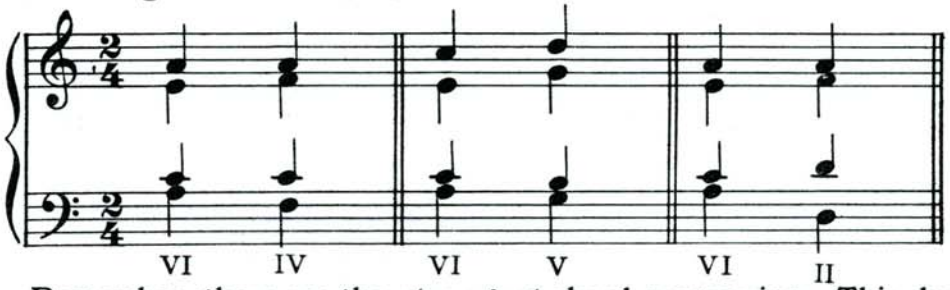
The best progression from the V is to the I:



It may also go to the VI or the III:



The VI goes to the IV, V, or II:



Remember, these are the *strongest* chord progressions. This does not mean that chords cannot move to chords other than specified here. It does mean, however, that the progressions listed herein are the best sounding and smoothest movements for these chords.

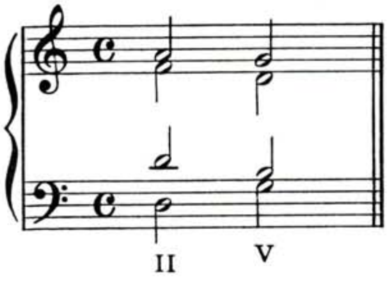
Compare these two sentences:

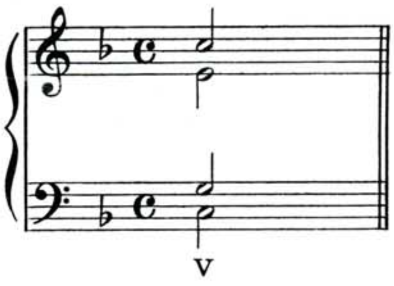
1. "I liked the show."
2. "The show was dynamic, and I more than enjoyed its humor."

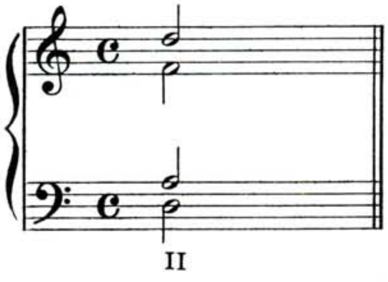
The choice of words in the second sentence gives the meaning of the thought power and projection. In the same way, a choice of chords makes a musical phrase either weak or strong.

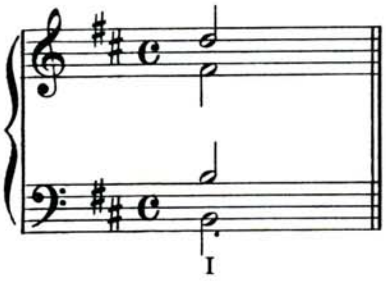
WRITING LESSON

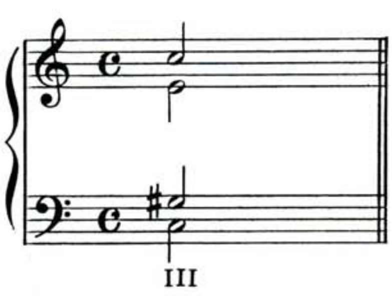
In each of the following examples choose the next chord and move the voices correctly to it. CHOOSE A STRONG PROGRESSION. The first example has been worked for you.

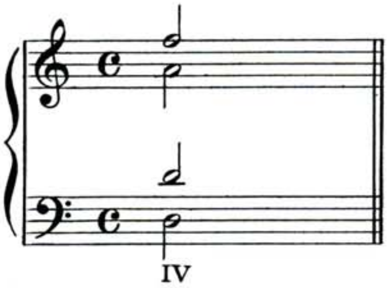


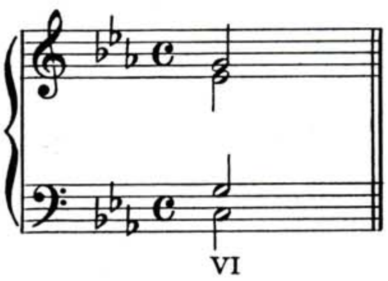


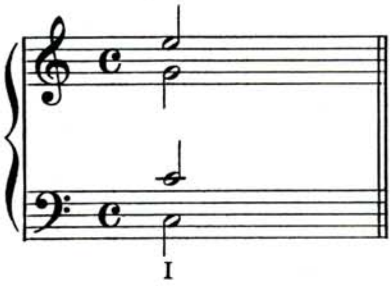


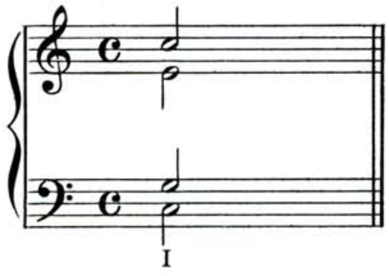


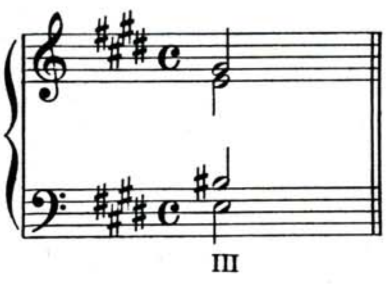


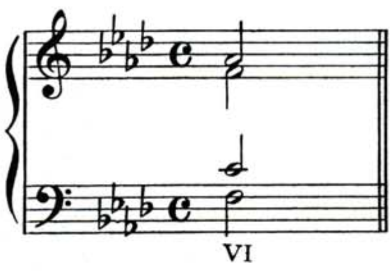


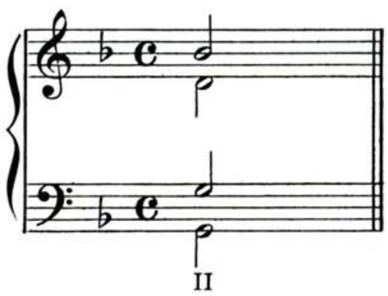












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MELODIES

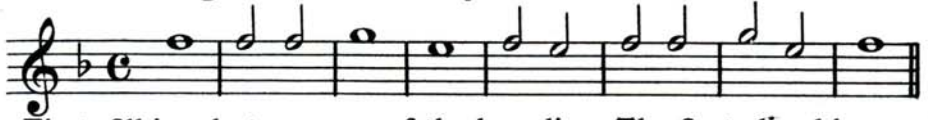
Do you remember how you learned to swim? Did someone throw you in deep water and let you take care of yourself, or were you taught by a more humane swimming instructor who first taught you the dog paddle, how to float, how to kick, how to move your arms for the basic stroke, and finally let you swim on your own when he was perfectly sure that you could take care of yourself?

The second method of teaching is better and safer than the first, don't you think? Unless you are unusual or lucky you can't learn well by hit or miss methods. That is why you are learning step by step in harmony and making real progress.

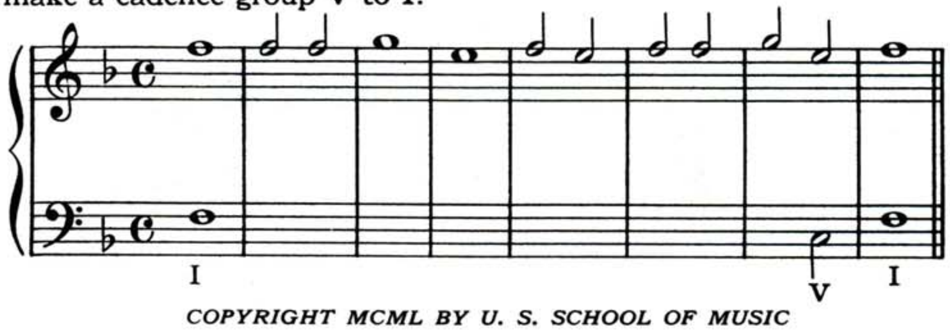
Up to this point you have been studying the basic ideas of harmony. When you are given a melody to harmonize you have to invent your own bass; in other words, you are no longer just filling in upper voices to a given bass, but instead you are creating your own harmony. Once you've done this you've taken a step towards being a composer. Composing is creating. After you have successfully created harmony for given melodies you will write melodies of your own and harmonize them.

Before you begin writing harmony for the given melodies that follow, you will be shown a good plan in working out the melodies. Then go to the examples and try your hand at it. It might be advisable after having read the method for harmonizing outlined below to go back and read over the two preceding chapters on cadences and strong progressions from any chord. Keep in mind that you will probably find yourself tearing your hair (all composers tear their hair) over the first melodies you attempt, but don't be discouraged; just work and rework each melody carefully and sooner or later you will discover how to solve the difficulty.

Here is an eight measure melody. Let's harmonize it:



First, fill in what you can of the bass line. The first chord is usually the tonic chord, and in this melody you can see that the tonic chord will harmonize the first note. Naturally, the final bass note will also be tonic. Now, look at the next to the last note of the melody; it is obvious that the bass for this note must be the V chord in order to make a cadence group V to I.



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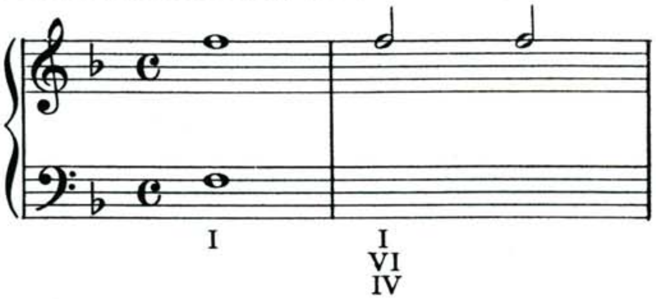
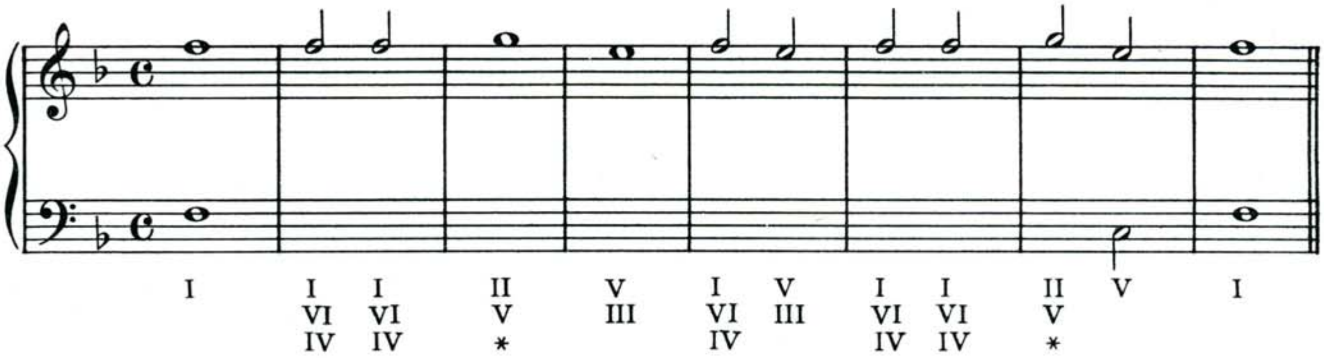
The next step is to write the Roman numerals for the three possible chords under each note of the melody. These three possible chords can easily be determined; the three chords for any note are always the chord built on the melody note, the chord built on the note a third below the melody note, and the chord built on the note a fifth below the melody note. For example the chords listed under the second note of the above melody are:

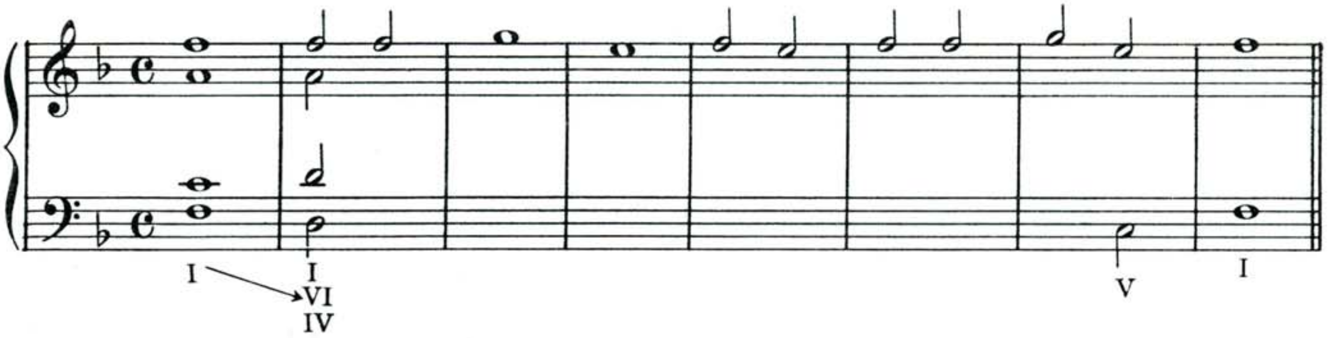


In the same way you can list the chords under all the notes.



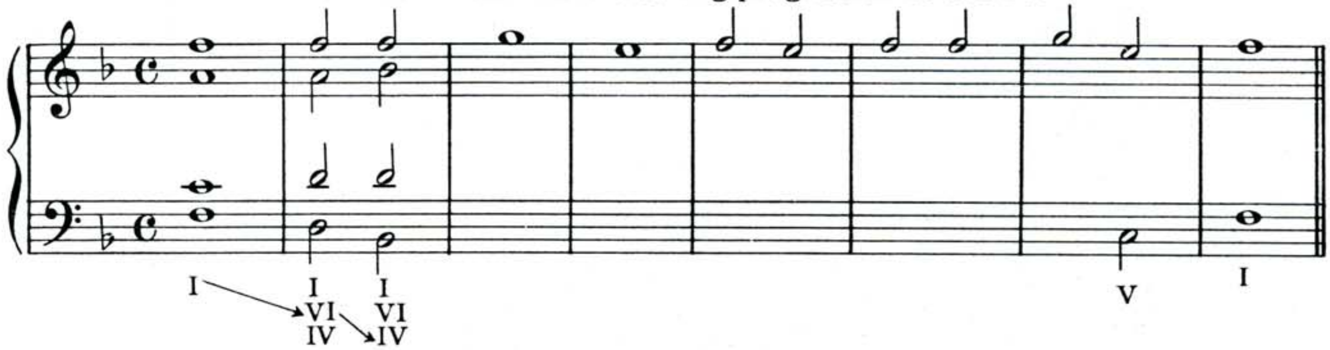
Now, as you harmonize the melody—ALWAYS KEEP IN MIND THAT YOU SHOULD USE A STRONG PROGRESSION FROM CHORD TO CHORD. (YOU MUST ALSO CHOOSE A PROGRESSION SO THAT THE MELODY NOTE MOVES CORRECTLY.)

The I can go to any chord, so let's begin by moving the I to the VI.

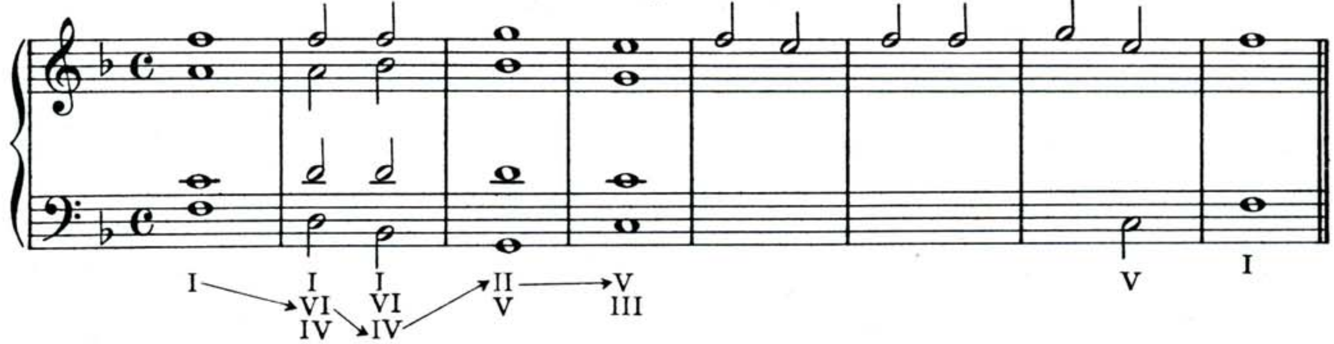


* The VII is not used in Mod. Elem. Harm., therefore only two chords are listed under notes where the VII might occur. After Lesson 24, VII will be employed.

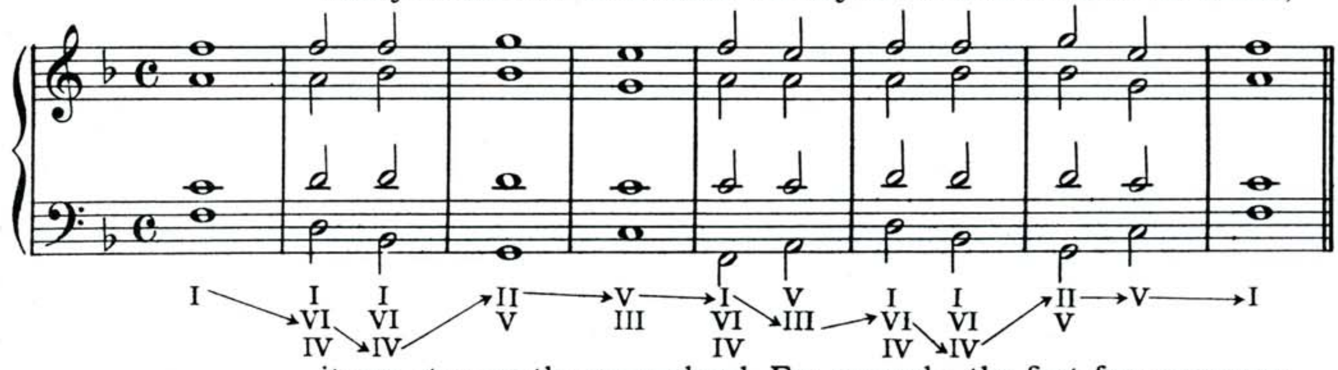
The VI can make a strong progression to the IV.



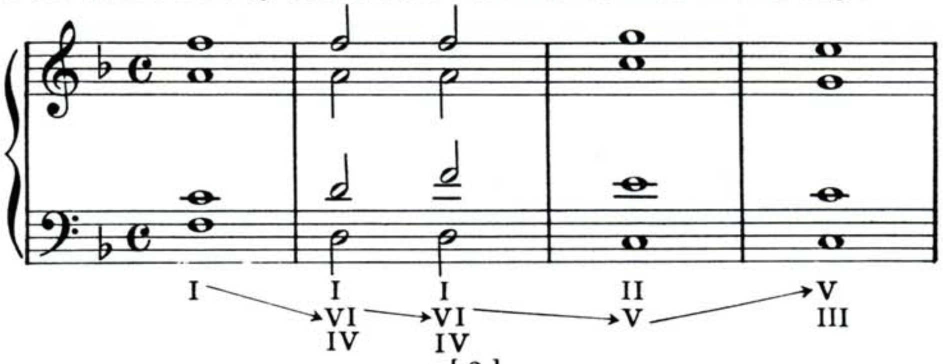
Likewise the IV can go to the II; then the II goes well to the V.



Completing the harmonization chord by chord you continue from V to the I, to the III, to the VI, to the IV, to the II, to the V, and finally to the I. A chord doesn't always have to move to a new chord;



it can stay on the same chord. For example, the first four measures of the above melody could have been harmonized in this way:



WRITING LESSON

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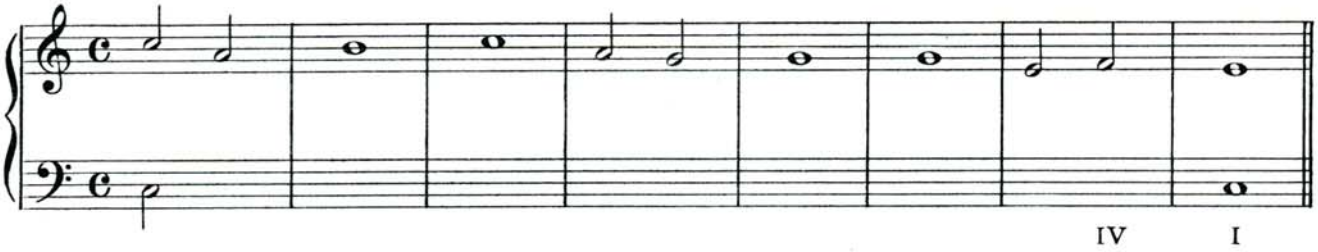

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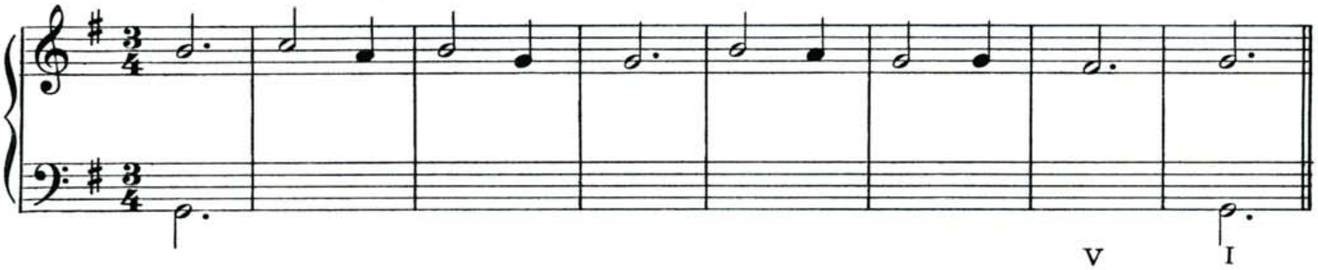

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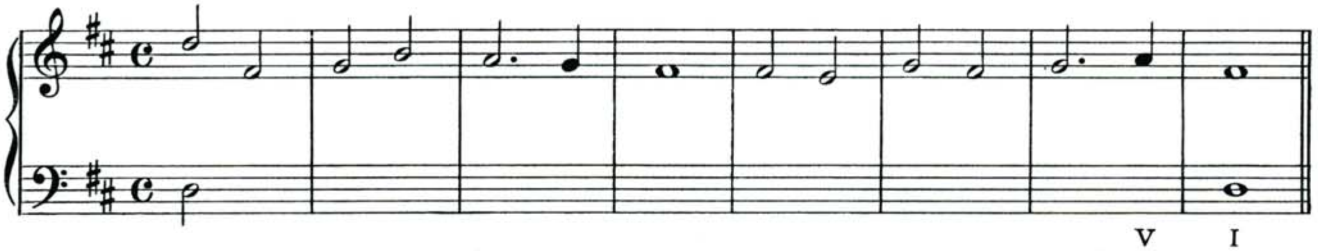

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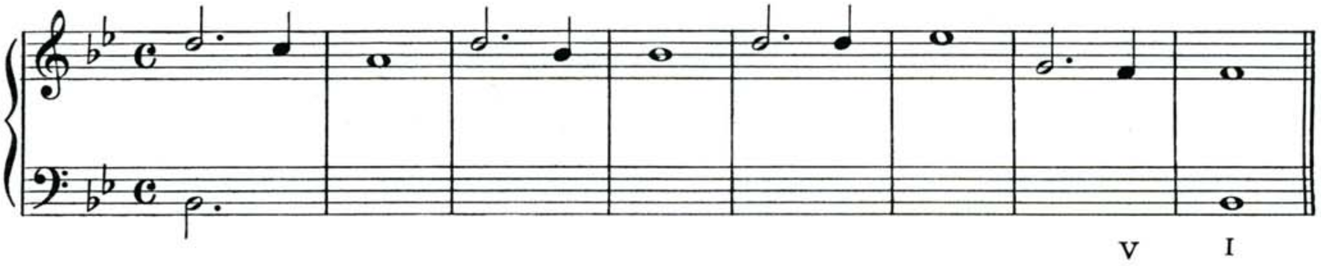

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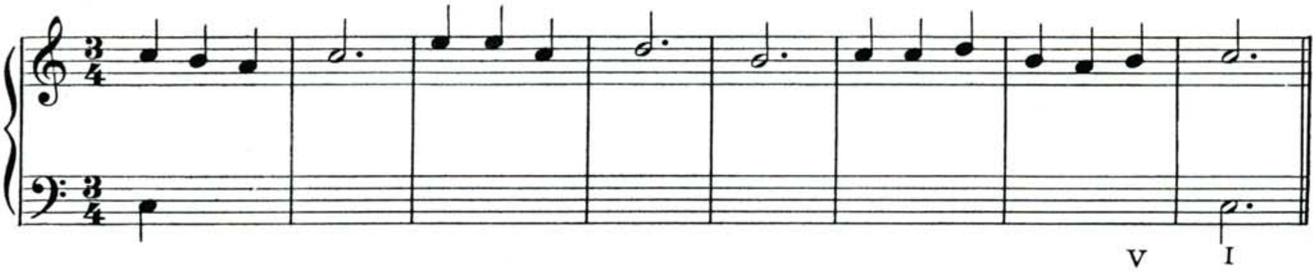

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MORE KNOWLEDGE — BETTER MUSIC

You have nearly concluded Elementary Harmony. We hope you have enjoyed learning how music is constructed. However, you shouldn't stop learning just because you have finished this part of the Course.

Soon you will learn the different ways that simple chords can be used; how chords can be turned upside down (inverted); the method of building seventh chords and diminished chords from the seven basic chords; and you will be taught how to modulate from one key to another. These are only a few of the valuable harmonic tools you will add to your equipment. Other than this you will be delightfully surprised to find how simple it is to compose original melodies that you yourself can play. You will see how to use modulation and build full length thirty-two measure songs, and if you wish you may apply this knowledge in composing popular tunes.

At the end of this lesson are several more melodies for you to harmonize. Some of them are in minor keys. These will be harmonized in the same way as the ones in major; however, always keep in mind the progression exceptions in minor when you work out these exercises.

How do you know when a melody is minor?

Usually a minor melody will have one note chromatically changed throughout the melody. Since you know how to use the Key Signature Table you can tell from the key signature of the melody and this chromatically changed note just what the final bass note is. Then it is no trick to harmonize the melody since you know the tonic chord is built on the final bass note.*

Occasionally there might be a minor melody without any chromatically altered notes; then the only way you can decide whether the melody is major or minor is to look at the last note of the melody; if this note is one of the notes in the minor tonic chord the melody can be harmonized in a minor key. If the last note of the melody is a note in the major tonic chord then the melody can be harmonized in major. Sometimes a melody can be harmonized in either major or minor. You will be able to determine whether a melody is major or minor with experience in harmonizing.

There are two basic emotions, happy and sad. From these grow all the feelings and desires of the human heart. In music, these two emotions are amply covered by major and minor; major for happy and minor for sad. From these two modes develop all the forms, styles and tone colorings that make up the innumerable emotional experiences that can be felt in the world of music.

* Don't forget to change the proper notes throughout the harmonization, after harmonizing a minor melody; use the Key Signature Table.

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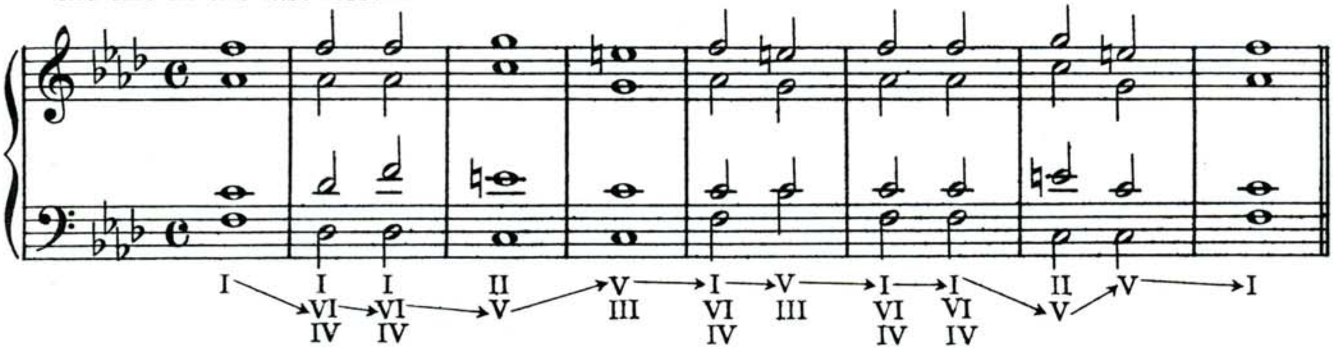
Here is the same melody used as an example in the last lesson, but in this case it is in the minor key. Compare this harmonization with the one in the last lesson.*



If you look at the Harmony Manual now you will see that everything taken up in this Course is summarized there for you. You already understand the Key Signature Table. The second section is a summary of all the progressions. The third section is a working plan for doing any further exercises you might want to do.

Remember it is advisable to stick to all the progression rules until you have a very good understanding of how the voices should move in harmony. However, the rules can be broken if you can lead the voices smoothly and if the music sounds well written. Sometimes, for example, you can double the third instead of the fundamental in the II, III, and VI chords. In Lessons 25 to 48, you will find other examples of doubling too.

Your ability will be enhanced by studying examples of good music such as hymns, folk songs and classical works. Write all the harmony you can. Also invent melodies of your own and harmonize them. Write! Write! Write!

You have learned the important fundamentals—you have taken the first steps toward composition. Let's hope you are not content to stop now. Find out for yourself, as the great composers have, that the more musical knowledge you have at your command the better music you will write.

The radio is valuable for its many symphonic concerts, music commentators, operas and operettas, classic recordings and good jazz bands. There is no end to the books on music in your public library. If you live in or near a large city, there will be concerts and shows throughout the winter season. All of these opportunities which you can have at very little or no cost are valuable to you as a composer. The only thing you have to do is open your ears and eyes and put your mind in a completely receptive mood. Be observant and retain what you have experienced. Your music will then be alive, vibrant and substantial.

* Notice that the I, IV, V, and VI chords are chiefly used in minor. Occasionally the II and III are used; III to VI is a good progression.

WRITING LESSON

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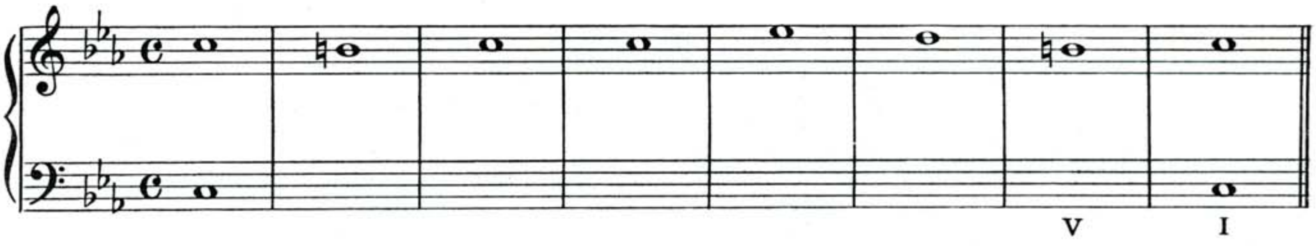

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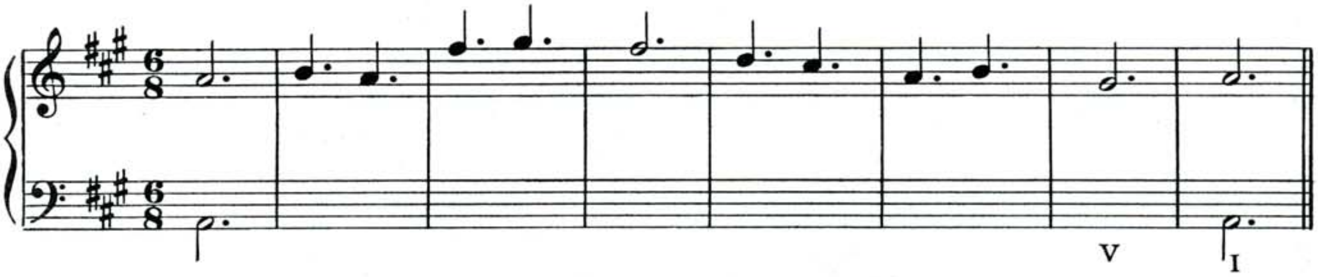

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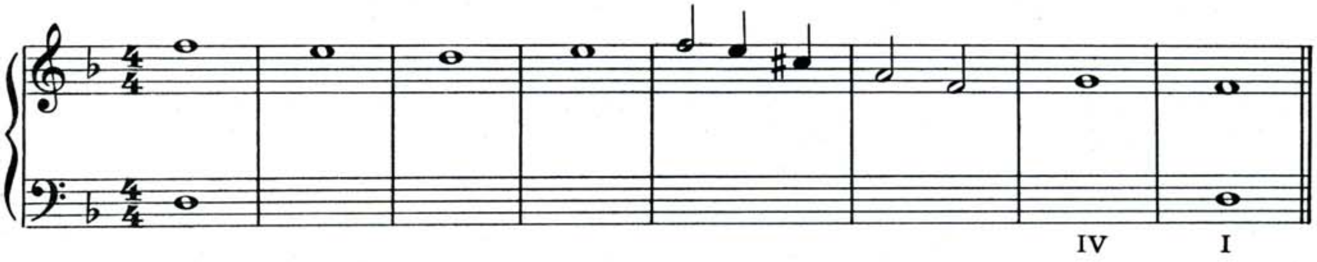

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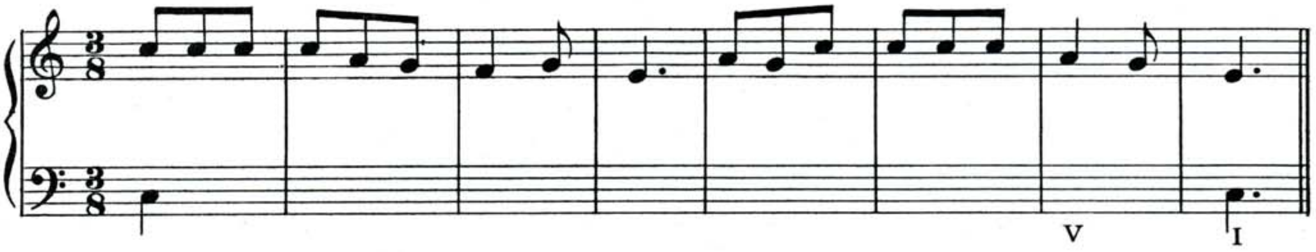

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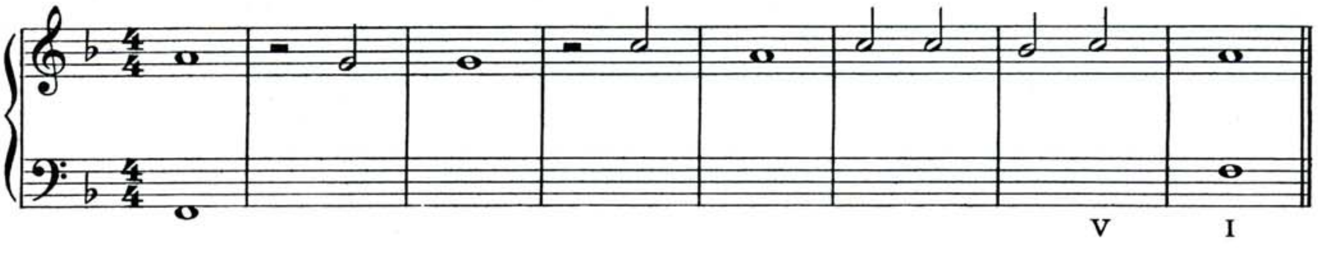

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MODERN HARMONY EXAMINATION No. 6

Covering Lessons 22-24

Name . . . .

St. or Box . . . .

City . . . . State . . . .

Fill in the above information. Send the completed examination to the U. S. School of Music, Port Washington, N. Y. This exam will be corrected and returned to you.

Harmonize the following melodies. Use strong progressions.

1

2

3

4

5

HOME STUDY COURSE

MODERN HARMONY

Lessons 25 to 36

Reg. U. S. Pat. Off.

U. S. SCHOOL OF MUSIC
NEW YORK

ADVANCED HARMONY

You have learned the facts of elementary harmony in the preceding 24 lessons. Beginning with lesson 25, the progressions of chords enter into the field of advanced harmony.

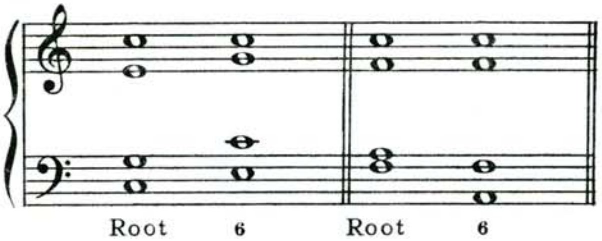
Follow through all former rules in the next 24 lessons. There will be exceptions due to inversions, but the comparison will be made clear.

Your musical map includes many routes of travel from one chord to another. Now you will have the pleasure of leaving the main highway of familiar chords to explore the less frequented by-ways of tone. Here you find rich treasures and beautiful discoveries in the world of harmony.

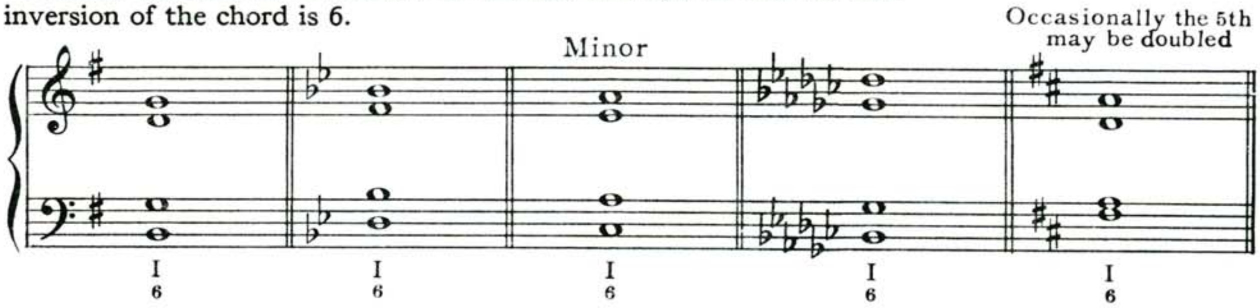
First Inversion of Chords

So far, you have harmonized with chords in the *root position* wherein the fundamental (tonic) note was in the bass.

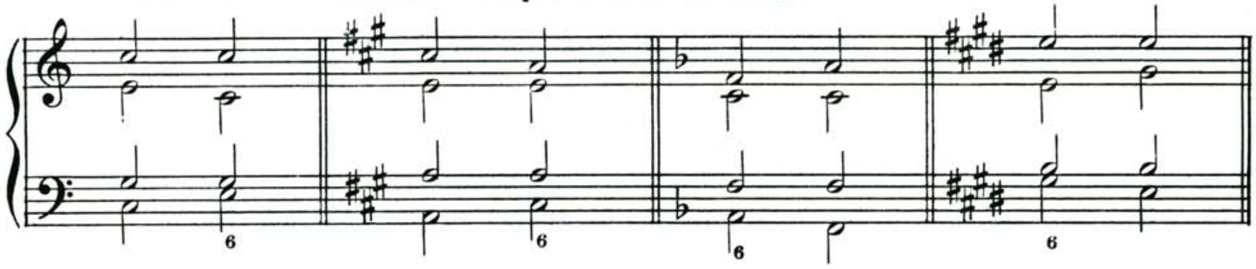
When a chord is in the *first inversion* the 3rd of the chord is in the bass.



Double the *root* of the chord. The figured bass symbol for the first inversion of the chord is 6.



ANY FUNDAMENTAL CHORD MAY FOLLOW OR PRECEDE ITS FIRST INVERSION. Keep the common tones.



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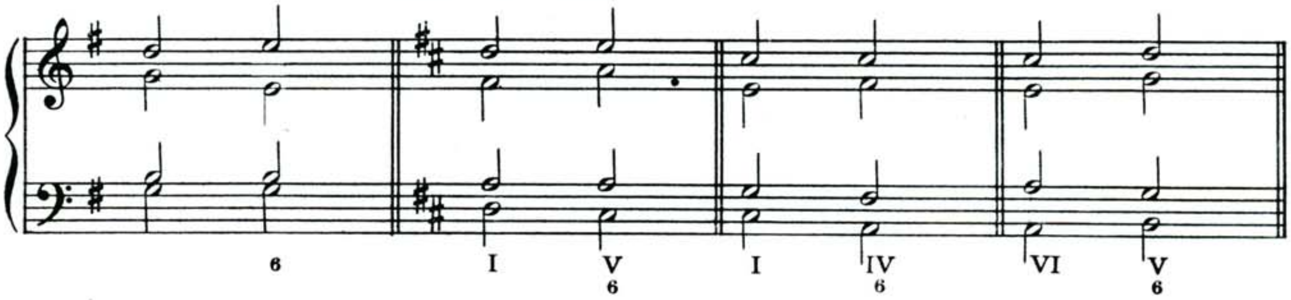
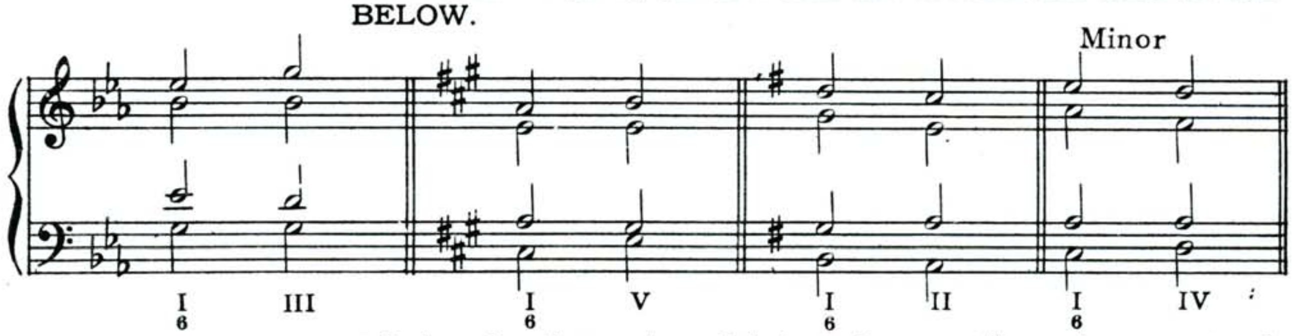
A FUNDAMENTAL CHORD MOVES TO ANY CHORD IN THE FIRST INVERSION WHOSE BASS IS THE SAME TONE, OR A TONE ANY INTERVAL ABOVE OR BELOW. MOVE THE DOUBLED ROOT IN PARALLEL OR CONTRARY MCTION.

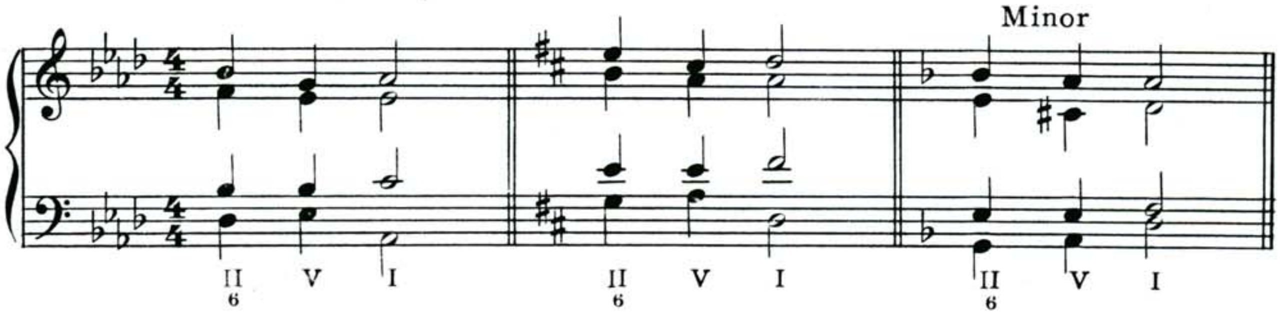


THE BASS OF A CHORD IN THE FIRST INVERSION MOVES TO A FUNDAMENTAL CHORD WHOSE ROOT HAS THE SAME TONE, OR A TONE AN INTERVAL ABOVE OR BELOW.



In learning these rules, stick to each one until you have mastered it. It is a mistake to continue to the next rule if you have not thoroughly digested the ones before. Write examples over and over. Try new examples of your own invention. This is the only way to be sure of a secure foundation for your writing. A builder cannot add two, three and more floors to a structure until he has built a firm foundation and one that will support the height of the construction according to his plans.

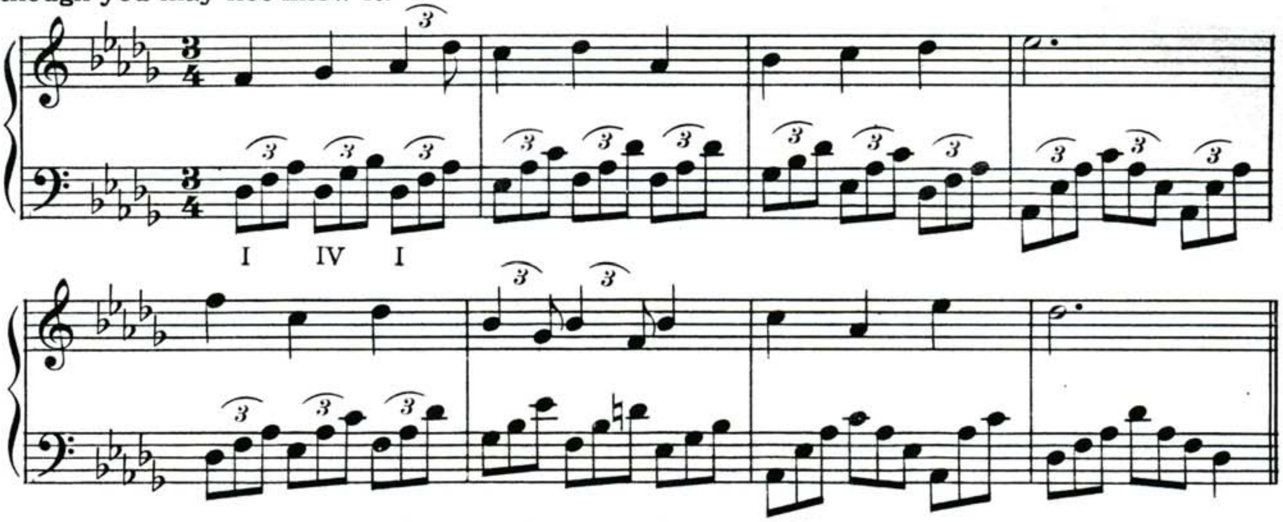
One of the most important extended cadences is the II, V and I. It is best when used as shown below, with the II in the first inversion. This avoids the bass skipping up a fourth from II to V in the progression.



LET IT HAPPEN

How many good melodies have you written? Students can harmonize basses for a certain period every day but will find melody writing a skill that often shows best results at inspirational moments when least expected. Schubert wrote *Hark, Hark the Lark* on a menu card while dining at an inn. You may accidentally sing or whistle a good melody while taking a walk or performing some daily chore. No matter when or where, jot down any original tune and save it for further development.

You have heard the expression "sleep on it" in regards to the same problem. The philosopher, Bertrand Russell, wrote: "I have found that if I have to write upon some difficult topic, the best plan is to think with great intensity for a few hours or days, and at the end of that time give orders, so to speak, that the work is to proceed underground. After some time, I return consciously to the topic and find that the work has been done." Your mind is constantly at work even though you may not know it.



Here is a form of accompaniment called a running bass. The notes can be any time value, but they follow a pattern. The triplets 3 are usually marked for the first few measures. From there on it is understood that three notes grouped into one beat mean triplets. They are counted a little faster than two eighth notes and a little slower than four sixteenth notes.

Some of these broken chords in the bass line are written in inverted position. Regardless, the notes when added together form a chord, triad or inversion.

The stems are written in the direction easiest for the eye to read. Usually the third line is the dividing line: notes above it have stems going down, while notes below it have stems going up. Notes on the third line are stemmed in the same direction as the majority of notes near it. The main thing to remember is to write a score that is concise, clear, and easy to read. This system of stem writing is not the same as in four part voice writing, as you can see.

WRITING LESSON

If a chord is not indicated 1st inversion by a 6, it is understood to be in the root position with the fundamental in the bass.

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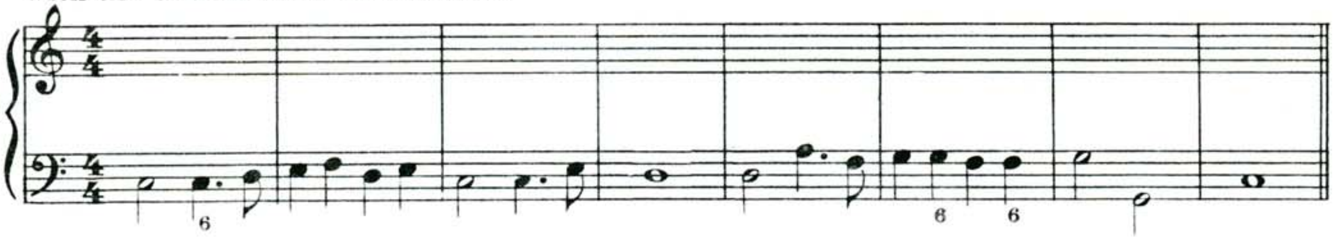

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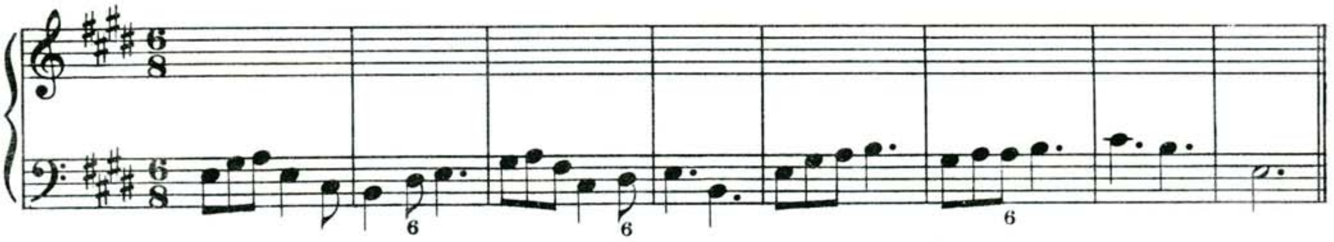

(Minor)

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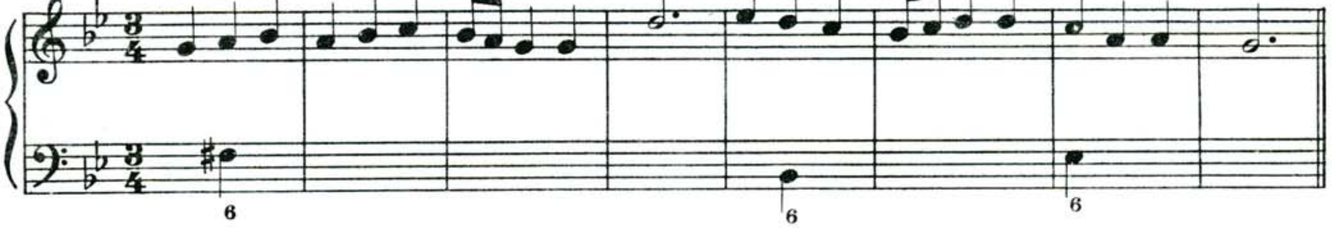

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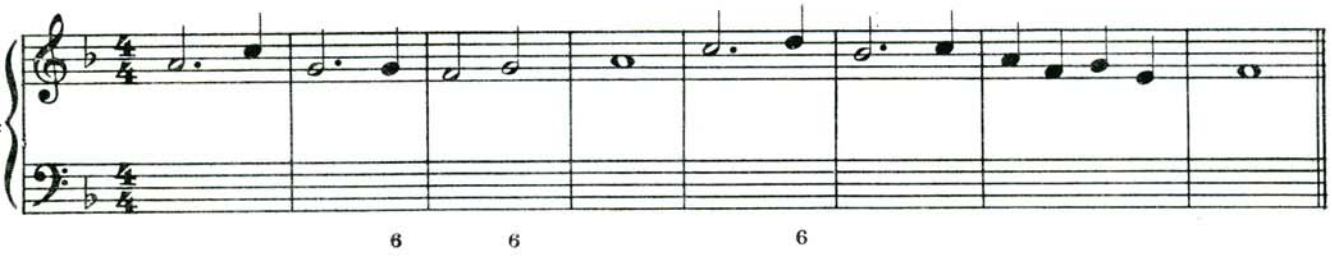

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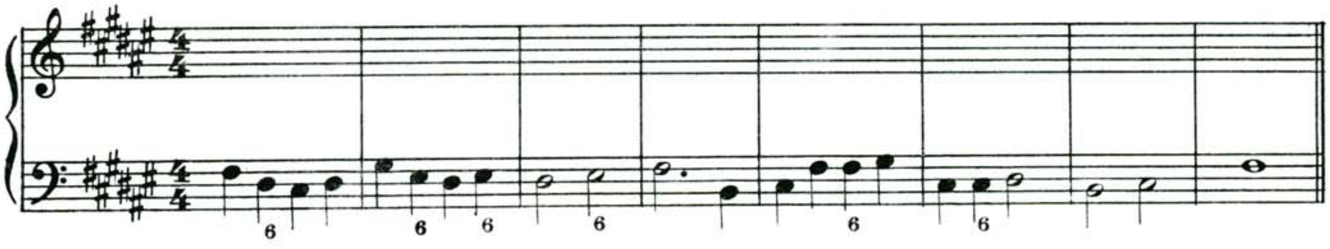

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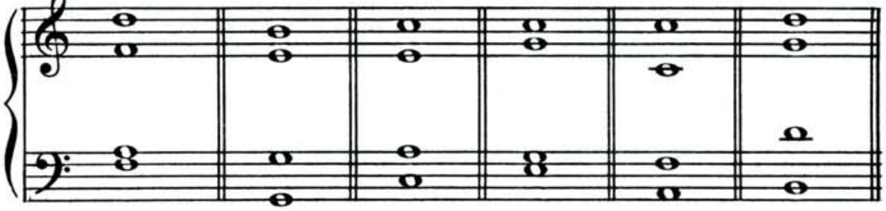
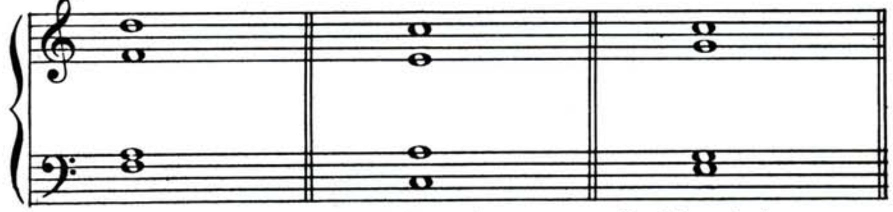
DOUBLING

In writing four part harmony, you have learned to double the fundamental when possible. There are exceptions to this rule. In the II, III and VI chords, the 3rd can be doubled. In the I, IV and V chords, it is possible to double the fifth in inversions. Later, you will learn which progressions call for doubling other than the root of a chord.



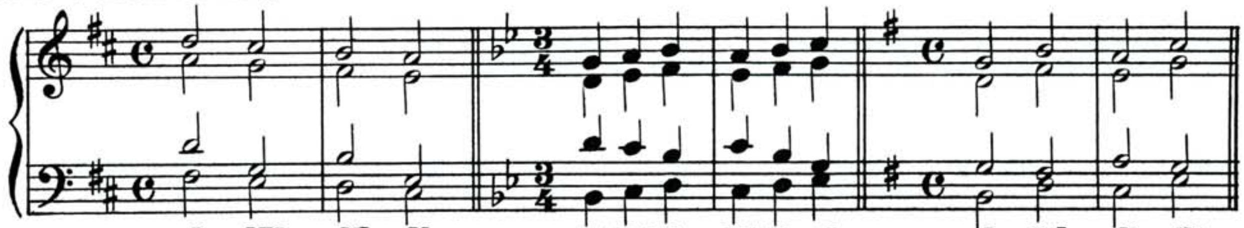
II 6 III 6 VI 6 I 6 IV 6 V 6

Inversions will sometimes *force* doubling the 3rd and 5th degrees of the chord. However, when doubling other than the root of a chord, it is best to use the 1st, 4th and 5th degrees of the diatonic scale of the key.

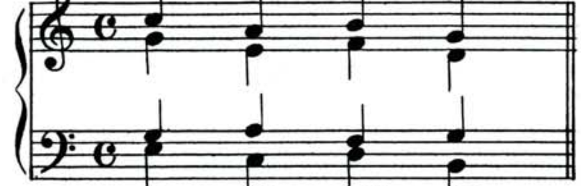


Double 4th degree Double 1st degree Double 5th degree

ANY FIRST INVERSION MAY MOVE TO ANOTHER FIRST INVERSION PROVIDED THE BASS MOVES UP OR DOWN A SECOND OR A THIRD. SOPRANO AND ONE OTHER VOICE MOVE PARALLEL WITH BASS. REMAINING VOICE SKIPS.



I 6 VII 6 VI 6 V 6 VI 6 VII 6 I 6 VII 6 I 6 II 6 I 6 III 6 II 6 IV 6



I 6 VI 6 VII 6 V 6

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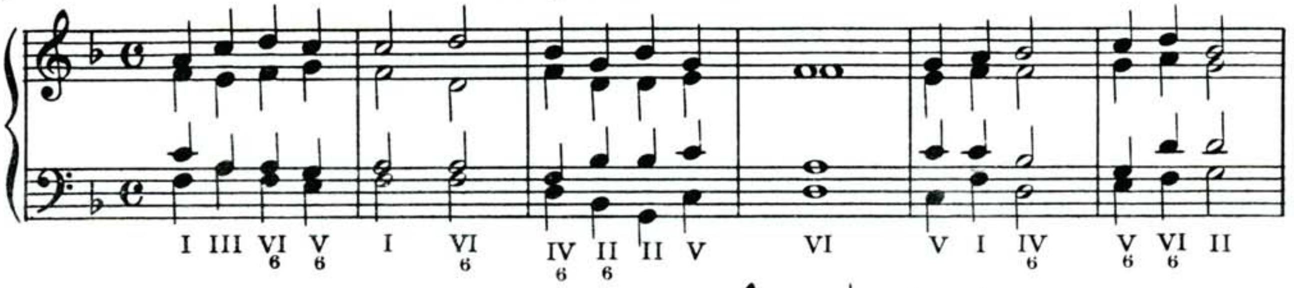
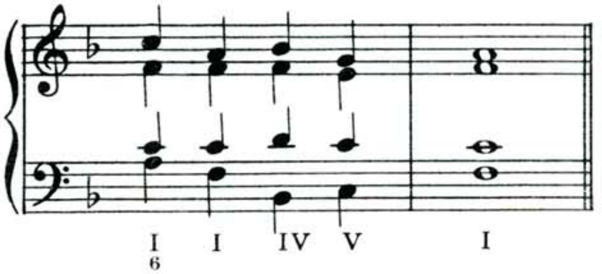
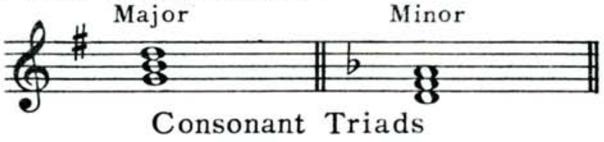
Here is a combination of the two possible progressions of the first inversion that you have learned.

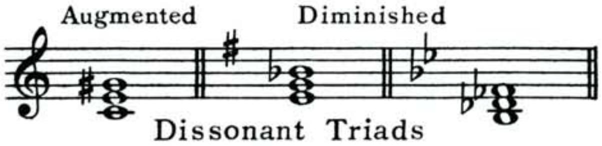




A chord is either consonant or dissonant. Consonant intervals and chords are pleasing to the ear and do not need to be resolved. **MAJOR AND MINOR TRIADS ARE CONSONANT.**

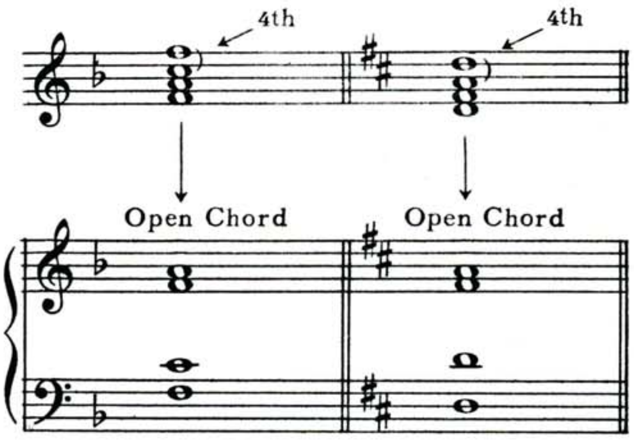


Dissonant intervals and chords are not satisfying to the ear and need to be resolved. **AUGMENTED AND DIMINISHED TRIADS ARE DISSONANT.**

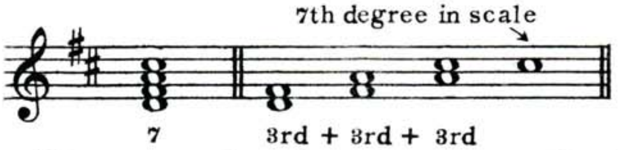


Do you know the story about the great composer who, like many others, disliked getting out of bed in the morning? It was the custom then for serious music students to reside with the master. They would play an unresolved chord when it was time for the teacher to arise. This would be a dissonant chord such as a dominant seventh or a diminished seventh chord. The composer would leap from bed, rush to the piano, resolve the chord by playing its progressional resolution and another day would be started.

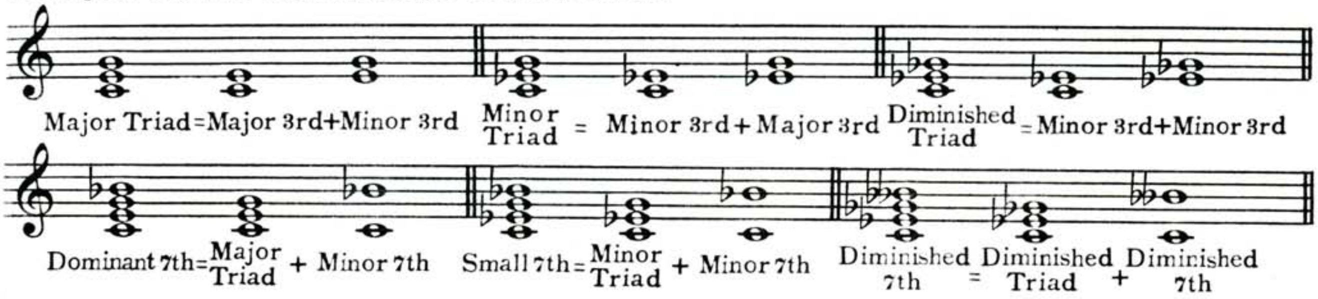
A triad may be written as a four-tone chord by adding another note. This is the chord you have been writing in open score with two voices in the treble and two in the bass. See how it looks as a closed chord. The root is doubled. Notice that one interval is a 4th.



When a four-tone chord is written in intervals of a 3rd, one on top of the other, it is called a SEVENTH CHORD. The added 3rd is the 7th degree of the scale. ALL 7th CHORDS ARE DISSONANT.

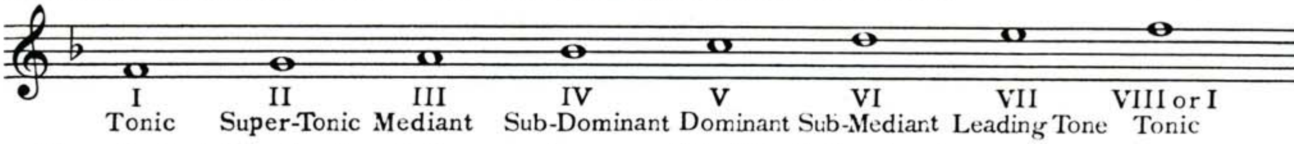


The name and quality of a 7th chord is the quality or type of the triad plus the size of the interval of the seventh.



You will learn more about 7th chords and their progressions later.

Each degree of the scale has a number name which you have been indicating by Roman numerals. Each degree also has a scale name.

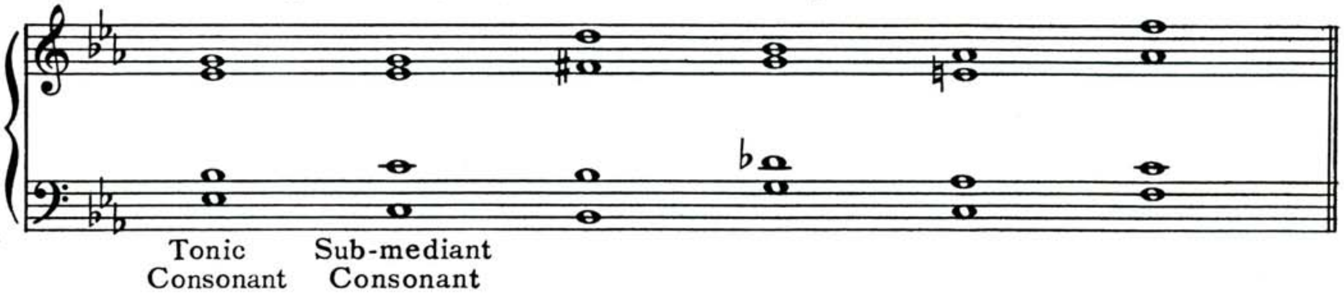


You studied the dominant degree when you identified the dominant 7th chord. The dominant 7th chord tends to pull harder to the tonic chord than the normal dominant chord when used in the cadence of V–I. This is why the dominant 7th is used more frequently in cadence progressions.

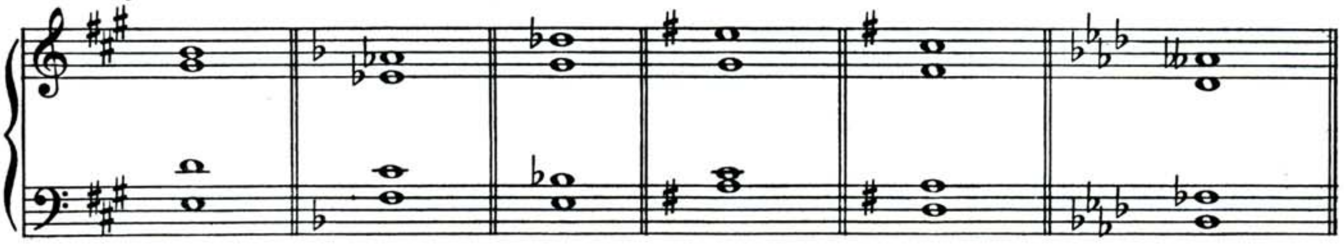
Therefore, a cadence progression could read IV, V, I or sub-dominant, dominant, tonic. We will use Roman numerals, as they entail less writing and are easier to remember.

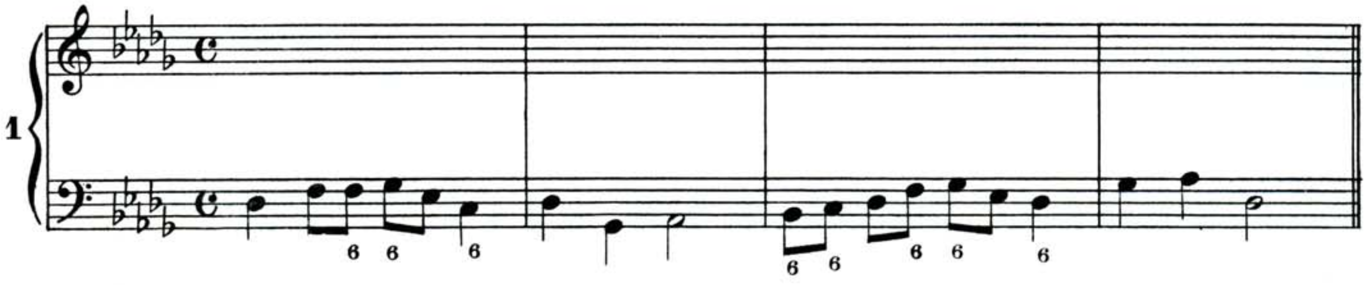
WRITING LESSON

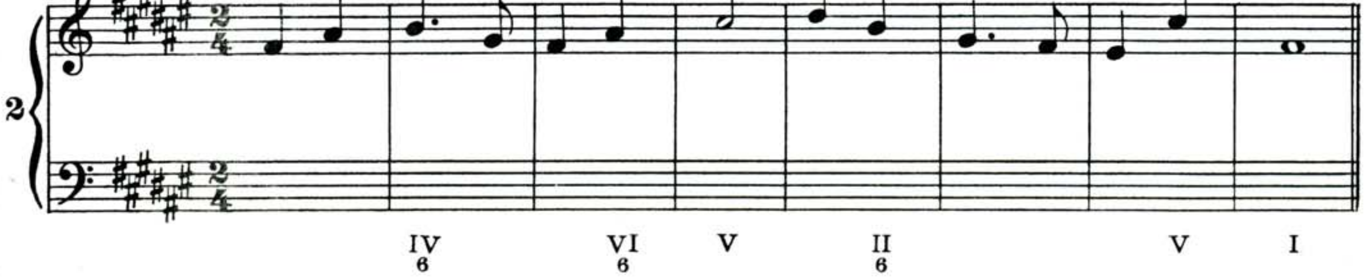
Name the following chords by degree, name and identify each as consonant or dissonant.

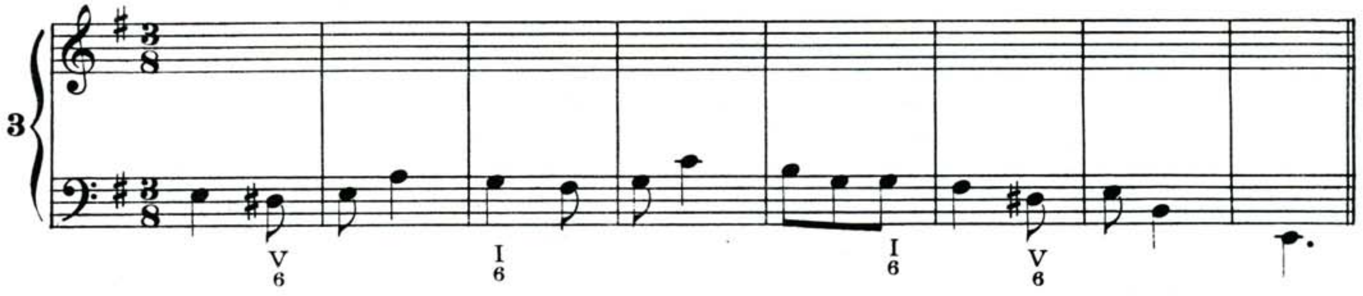


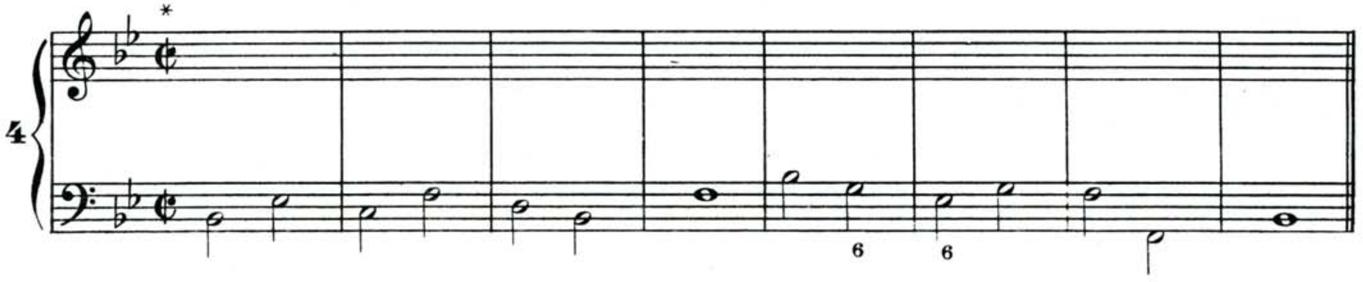
Identify the following 7th chords.

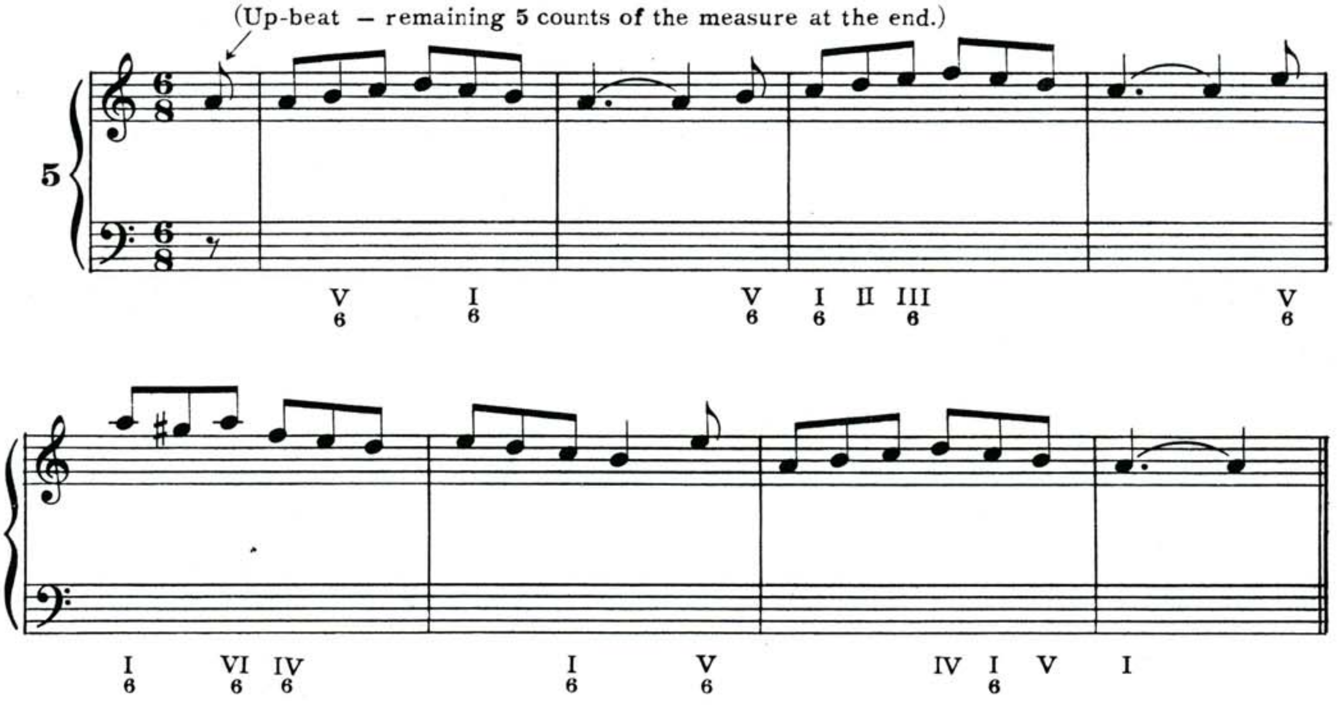












* ₵ Means cut time which is twice as fast as C or $\frac{4}{4}$ time.
The time signature for ₵ is $\frac{2}{2}$.

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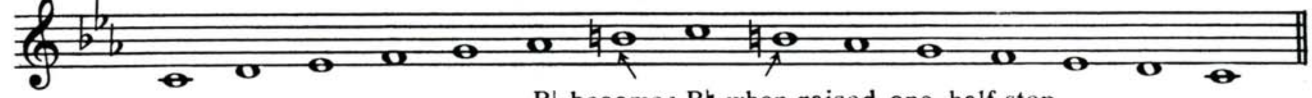
Check this writing lesson by going over it several times yourself.

KINDS OF MINOR SCALES

Back in lesson 2, you learned a minor scale for every key signature. There is only one scale for every major key but there are three minor scales for each key.

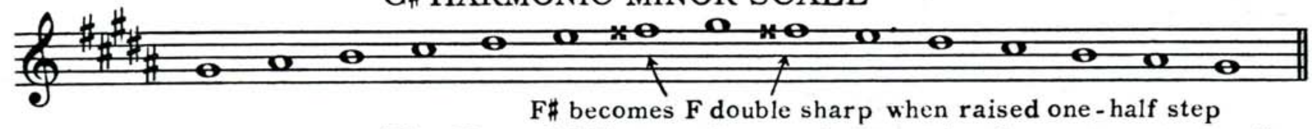
The most important is the Harmonic Minor scale which you learned in lesson 2. The notes are the same as the major scale except that the seventh degree is raised ½ step in the minor scale.

C HARMONIC MINOR SCALE



B♭ becomes B♮ when raised one-half step.

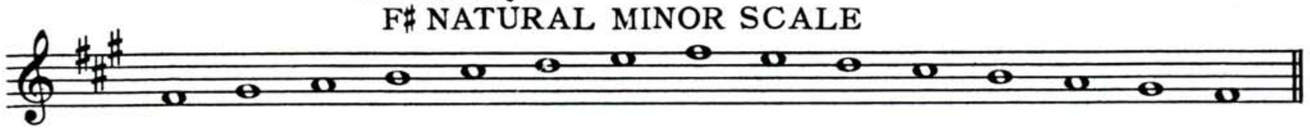
G♯ HARMONIC MINOR SCALE



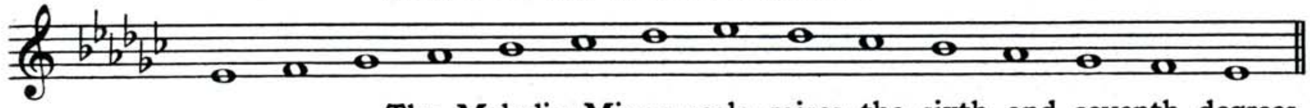
F♯ becomes F double sharp when raised one-half step

The Natural Minor scale contains exactly the same notes as the relative major.

F♯ NATURAL MINOR SCALE

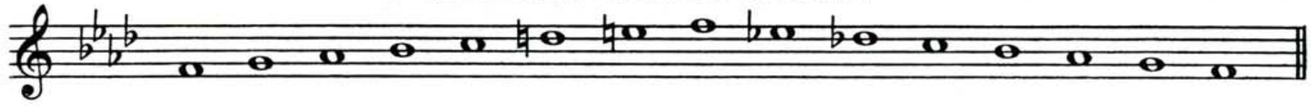


E♭ NATURAL MINOR SCALE

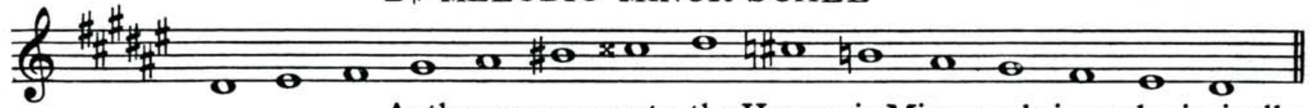


The Melodic Minor scale raises the sixth and seventh degrees ascending and lowers them descending:

F MELODIC MINOR SCALE



D♯ MELODIC MINOR SCALE



As the name suggests, the Harmonic Minor scale is used principally to strengthen the harmonic structure of a piece in minor. Therefore, it directly influences the melody and accompaniment of any music and is the composer's usual choice in the Minor mode.

The Melodic minor scale is employed occasionally to enhance or enrich the melody or theme of a composition. The Natural Minor scale is seldom useful in composition.

Write out all the minor scales in the Natural, Harmonic and Melodic form.

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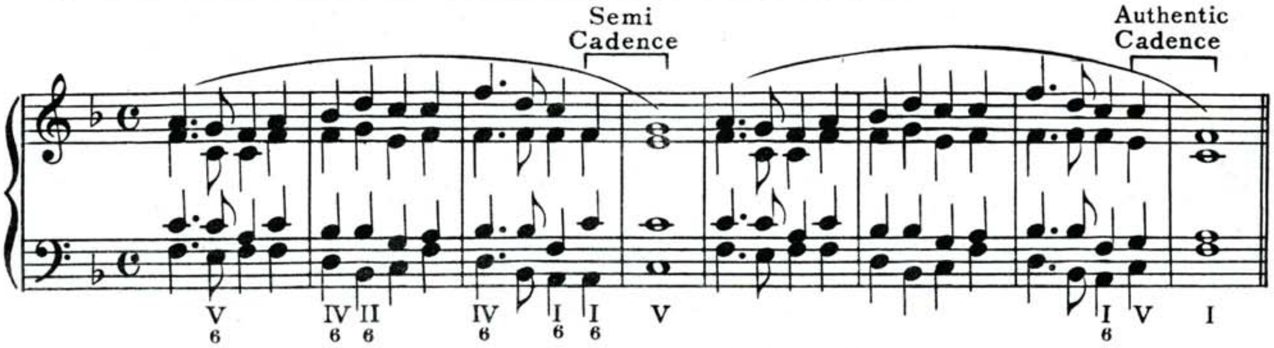
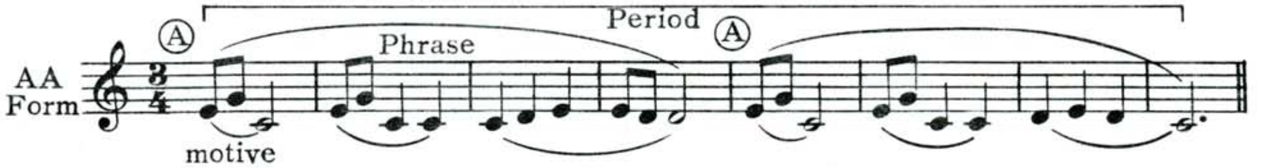
MOTIVE—PHRASE—THEME

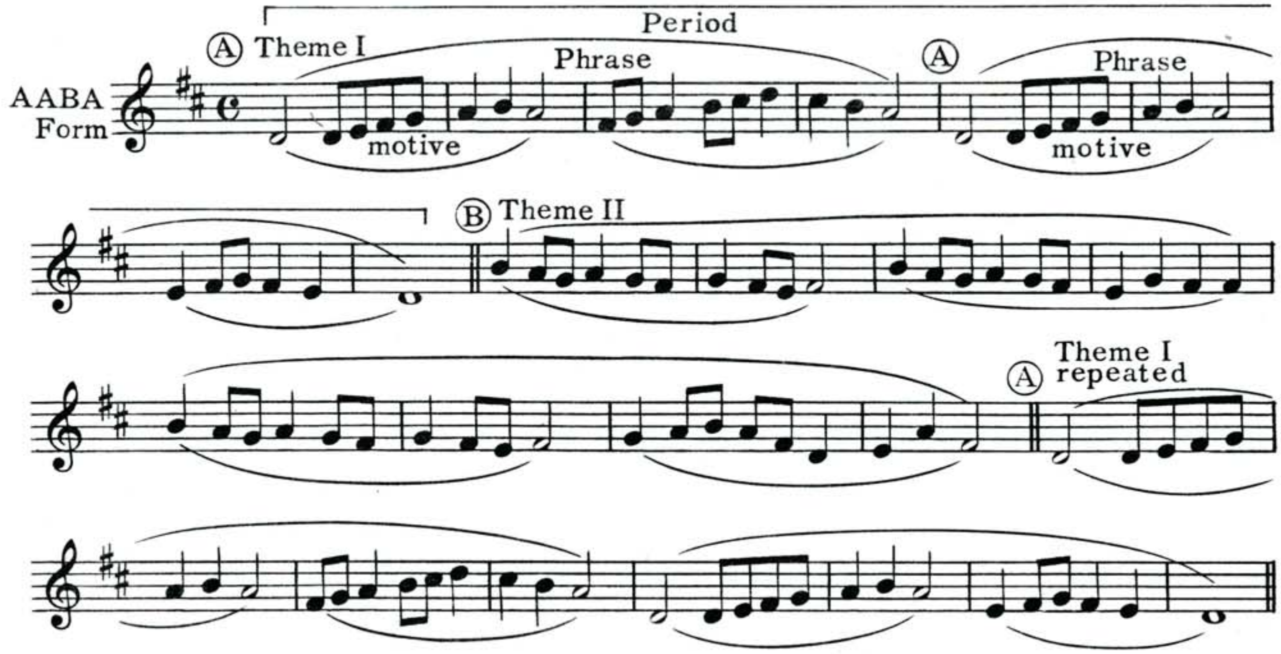
You can combine motives to make a phrase. Likewise, a combination of phrases makes a theme.

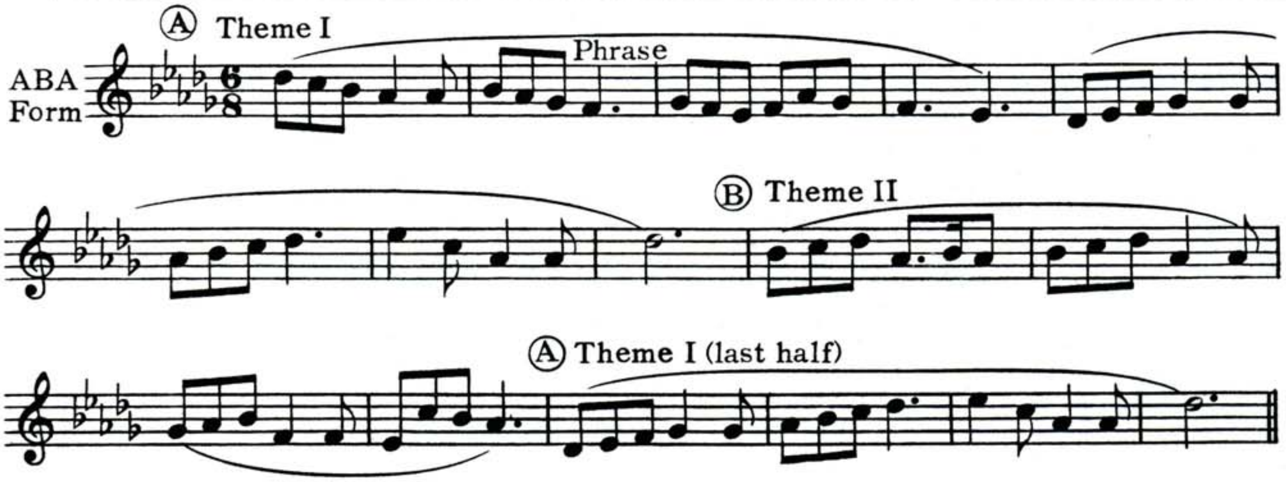
A *period* consists of two phrases. The first phrase ends with a cadence on the dominant called a semi-cadence (half cadence). The second phrase ends with a perfect authentic cadence (full cadence).



This period, generally of four or eight measures, is followed by a second period which is a repetition of the first period. At other times, the second period will be entirely new material. It depends what large musical form the composer intends. You will study about these forms later.







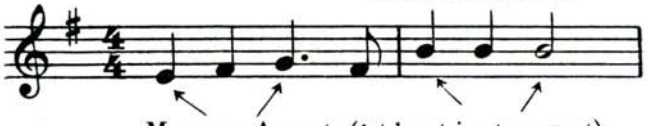
A theme is usually considered adequate if it has eight or sixteen measures. It becomes longer as a composition grows into larger forms.

ACCENTS OR IMPULSES

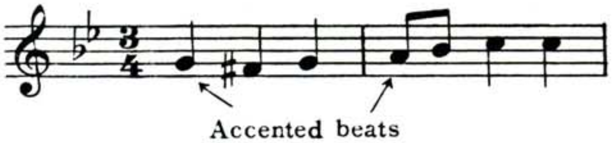
To identify motives, phrases, periods and themes when writing or analysing a written score is one thing. To recognize them when listening to music is another accomplishment. This brings us to playing by ear.

It is true that the rise and fall of music, giving a shape to the tonal structure, plays a great part in guiding the ear and emotional concept in accepting a group of notes as a phrase. However, rhythmically accented and unaccented notes form a boundary for melodic impulses.

An accent is a slight stress on a note. The natural accents fall on the 1st and 3rd beats in 4/4 time, on the 1st beat in 3/4 time and on the 1st and 4th beats in 6/8 time. The first beat in *every* measure is accented.



Measure Accents (1st beat is strongest)



Accented beats

A natural accent is not as strong as an artificial accent. The latter are accents indicated by the composer and can be placed on any note or beat or part of a beat, according to the composer's liking. Their musical symbols look like this: > ∧ –

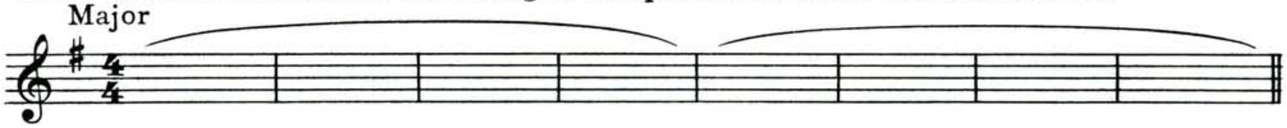
The unaccented or weak beats in a measure are the 2nd and 4th beats in 4/4 time, the 2nd and 3rd beats in 3/4 time and the 2nd, 3rd, 5th and 6th beats in 6/8 time.

A phrase starts with an impulse. It might be termed a push, as if the music said, "Now I'm going somewhere." A phrase ends with a slight diminishing of tone. Here it says, "I have finished this little journey and I must have a slight repose before I start another one." If you feel a phrase, you will recognize it when it is played.

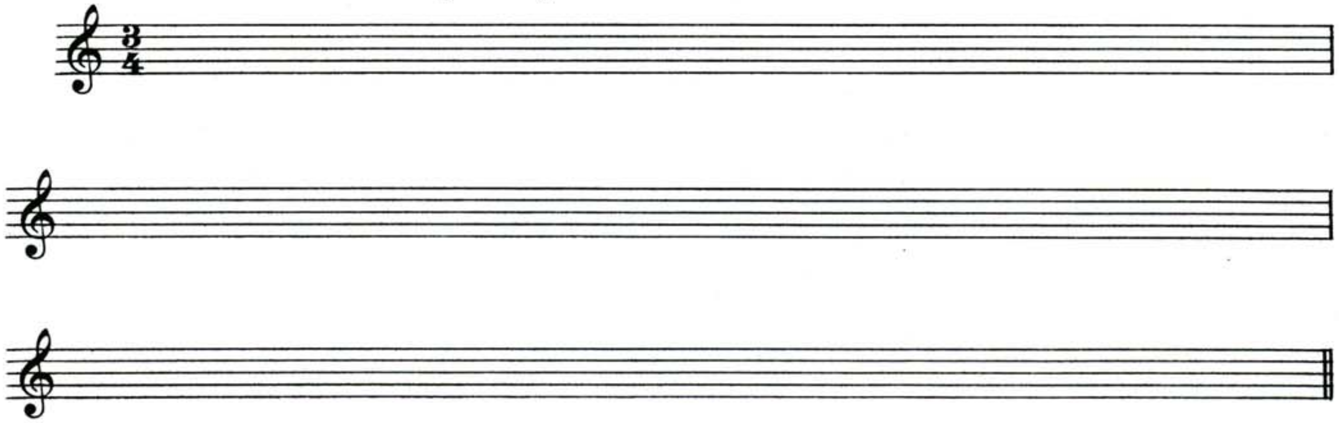
WRITING LESSON

Write an 8 measure theme consisting of two phrases and two distinct motives.

Major

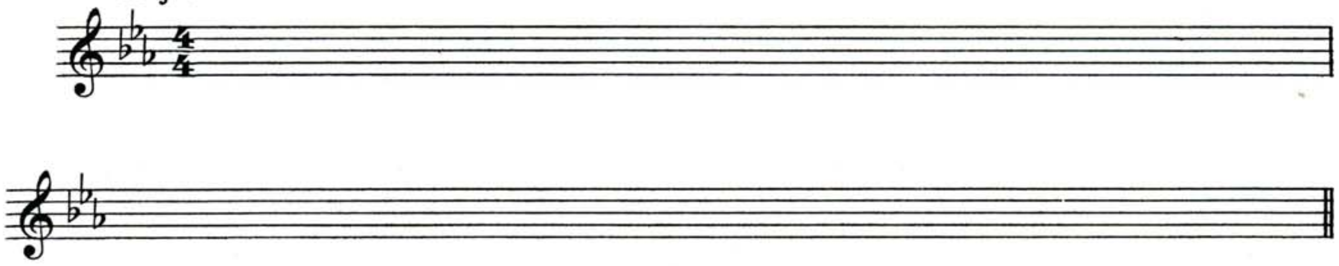


Write a 24 measure melody in key of C. Write in AABA form.



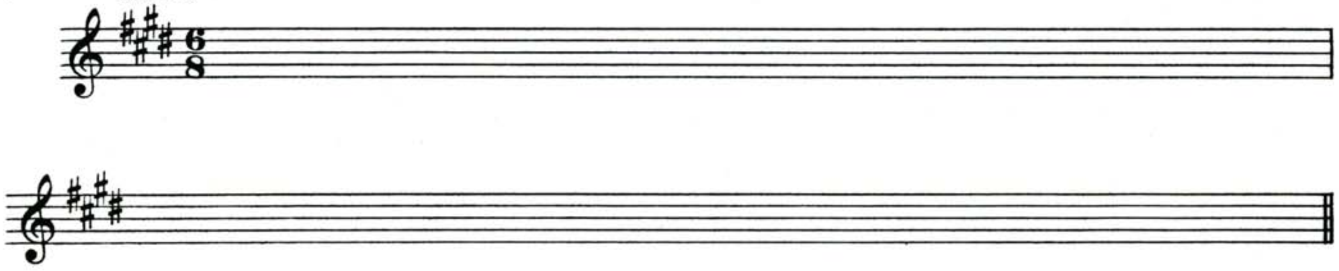
Write an original 16 measure melody in ABA form.

Major



Write an original melody in AA form. (Either 8 or 16 measures.)

Minor



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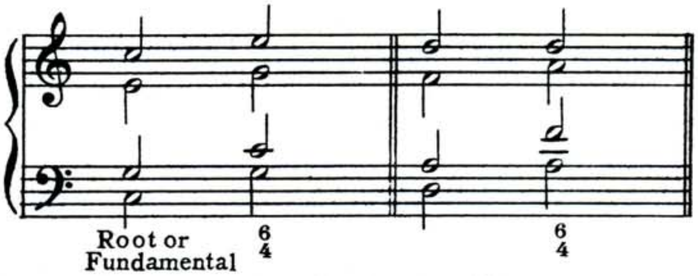
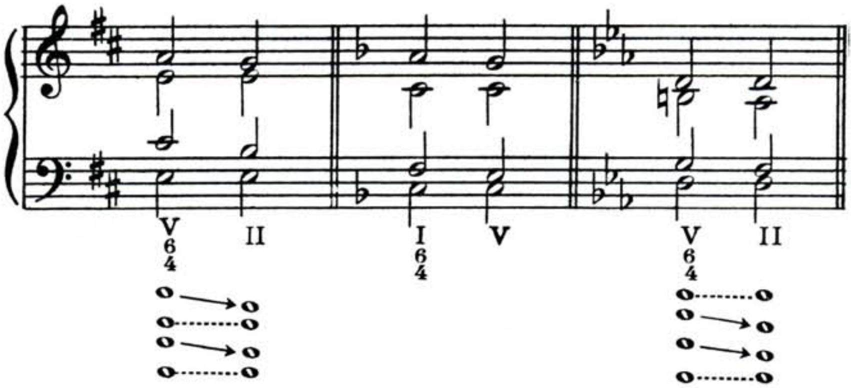
SECOND INVERSION

When a chord is in the *second inversion* the 5th of the chord is in the bass.

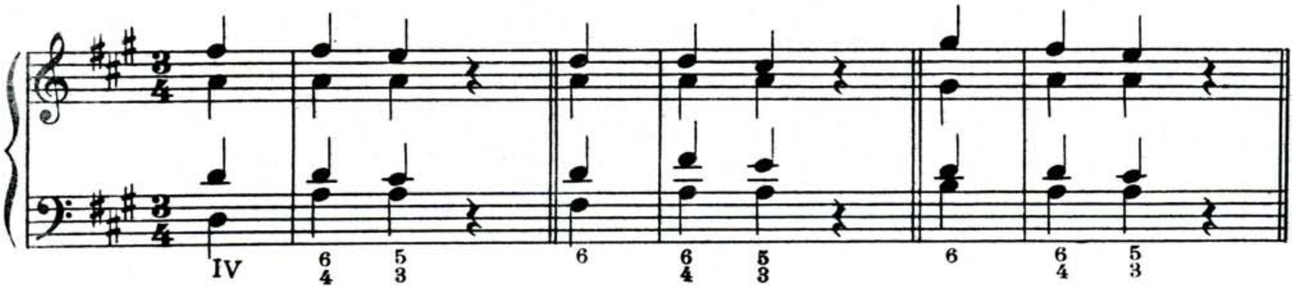


The bass which is the 5th of the chord is doubled. The figured bass symbol for the second inversion is $^{6}_{4}$.

THE SECOND INVERSION MAY RESOLVE TO THE CHORD OF THE SAME NAME AS THE BASS NOTE. BASS REMAINS STATIONARY, KEEP COMMON TONES, OTHER VOICES MOVE DOWN.



The second inversion resolving in this way is usually used on the accented beat of a measure and may be preceded by a fundamental chord or a first inversion on any note other than the same bass note or a bass tone a 3rd above.



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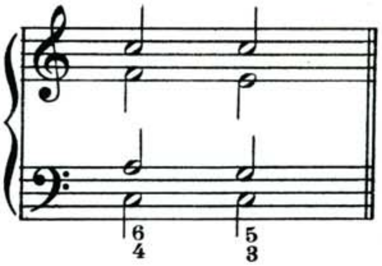
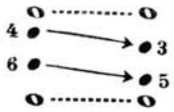
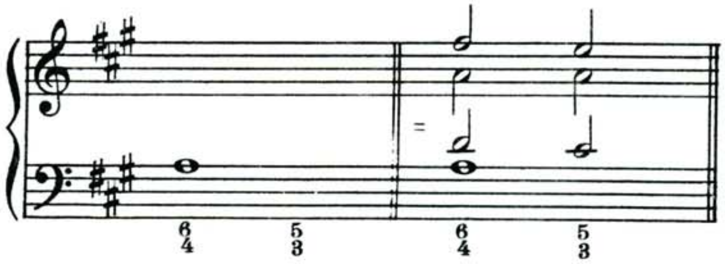
The symbols $\begin{smallmatrix}6 & 5\\ 4 & 3\end{smallmatrix}$ are used to designate this resolution. The 6th degree of the key moves to the 5th, and the 4th degree moves to the 3rd.





When one bass note is written and figuration reads $\begin{smallmatrix}6 & 5\\ 4 & 3\end{smallmatrix}$, use this resolution.



WRITING A POPULAR BALLAD

Since popular music plays such a large part in American life, practically every composer, at some time or another, writes a bit in this form. Popular tunes must be written as simply as possible, both in melody and harmony. The tune must be "catchy" so that it can be remembered after several hearings. It is almost impossible to define this quality and publishers are never sure that a song will make a hit. The words must be clever, and they usually tell a story, paint a picture or capture a mood.

The form of a popular melody varies according to the style of the words, but the most usual is the A A B A form. Each section totals 8 measures making a grand total of 32 measures. This is known as the chorus. The song can also have an introduction of 4 or 8 measures and a verse of 8 measures. Most of the time, the public is interested only in the chorus or refrain and the verse is seldom considered unless played or sung by a jazz band.

There are two main classifications of popular music: the ballad or waltz, and rhythmic or swing. The ballad emphasizes melody and is slow in tempo, usually written in 4/4 time. The rhythmic is based on any syncopated rhythm according to the style it represents such as jitterbug, samba, boogie-woogie, etc.

Remember that the popular tune can be more or less measures than the familiar 32 measure form but this is a basis from which to work

until you become conscious of the proportions of each section. At the end of this lesson is a 32 measure tune with words and accompaniment. Analyse it carefully. Then study the structure of some of the popular pieces that you like. Compare them and see how each is built according to melody, harmony and sectional length.

There is no rule for the starting point in writing a popular tune. Many of the best sellers are written by two or more persons. Some writers work together combining the words and music phrase by phrase. In some cases, a lyricist writes the words first and the composer follows with the music, or vice versa. Working from one idea such as a line of words or a phrase of music, the tune develops.

Remember these points when writing popular tunes:

1. Make the melody simple, catchy and within a definite form, preferably 32 measures in length.

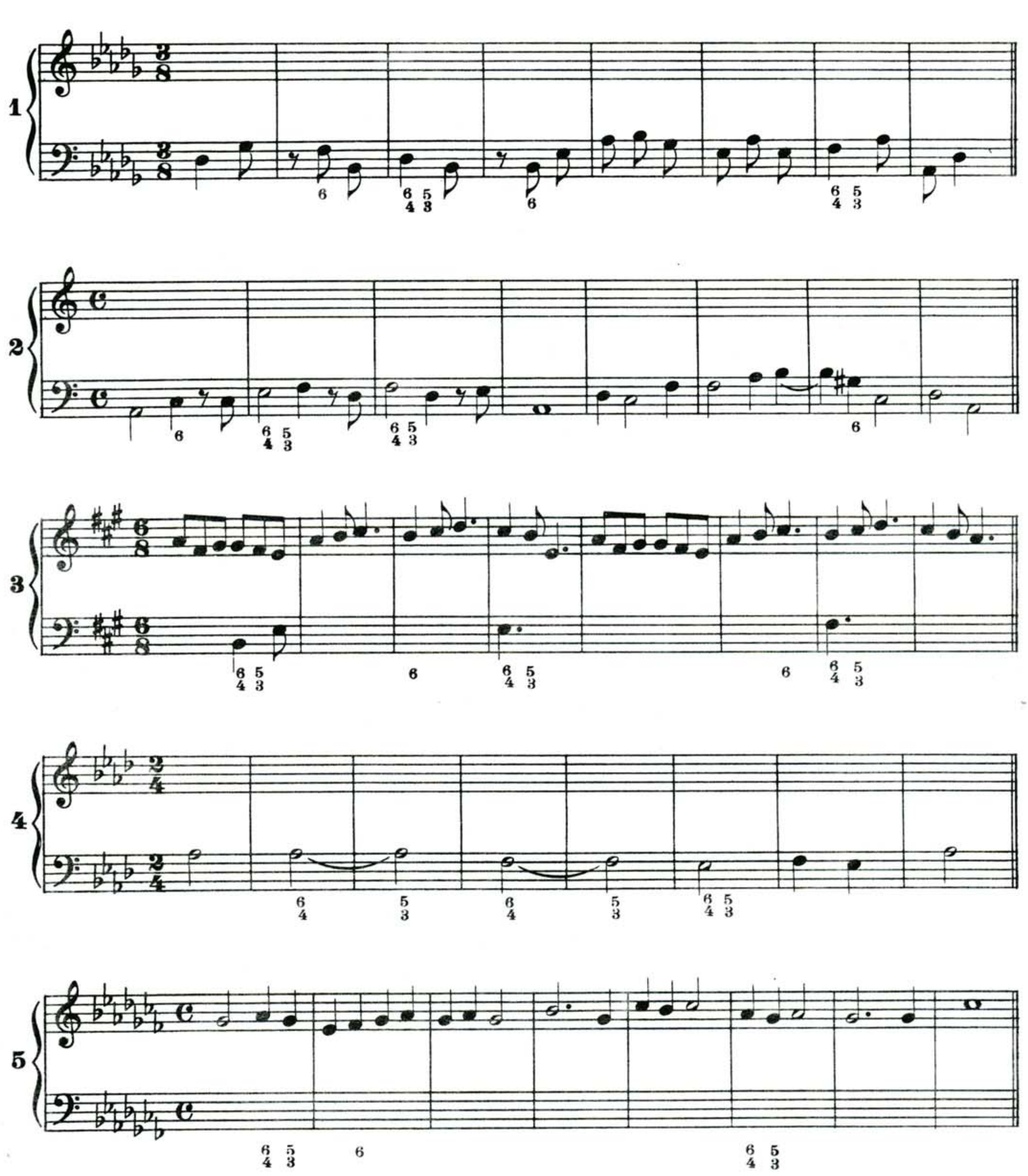
2. Write a preceding introduction and verse.

3. Write an easy accompaniment using mostly I, IV and V chords, perhaps one or two relative minor chords and one diminished seventh chord. (The latter is only a suggestion for creating harmonic interest.) Do not write large chords as most of the public interested in popular music has not had advanced playing experience.

4. Write original tunes. Do not steal parts of other published songs.

5. Don't pay to have your work published—a reputable publisher will pay you.

WRITING LESSON



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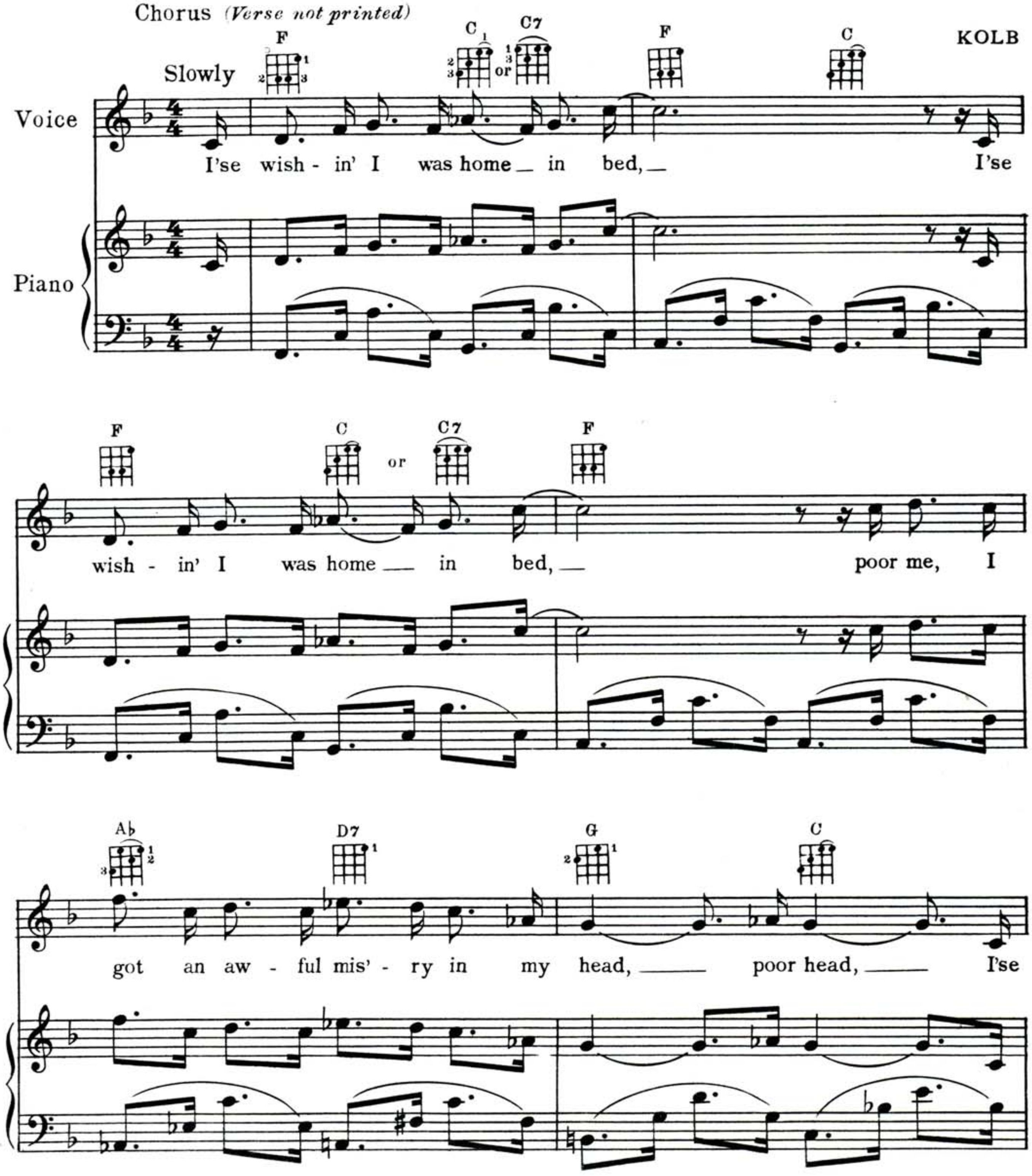
POOR OLD NED



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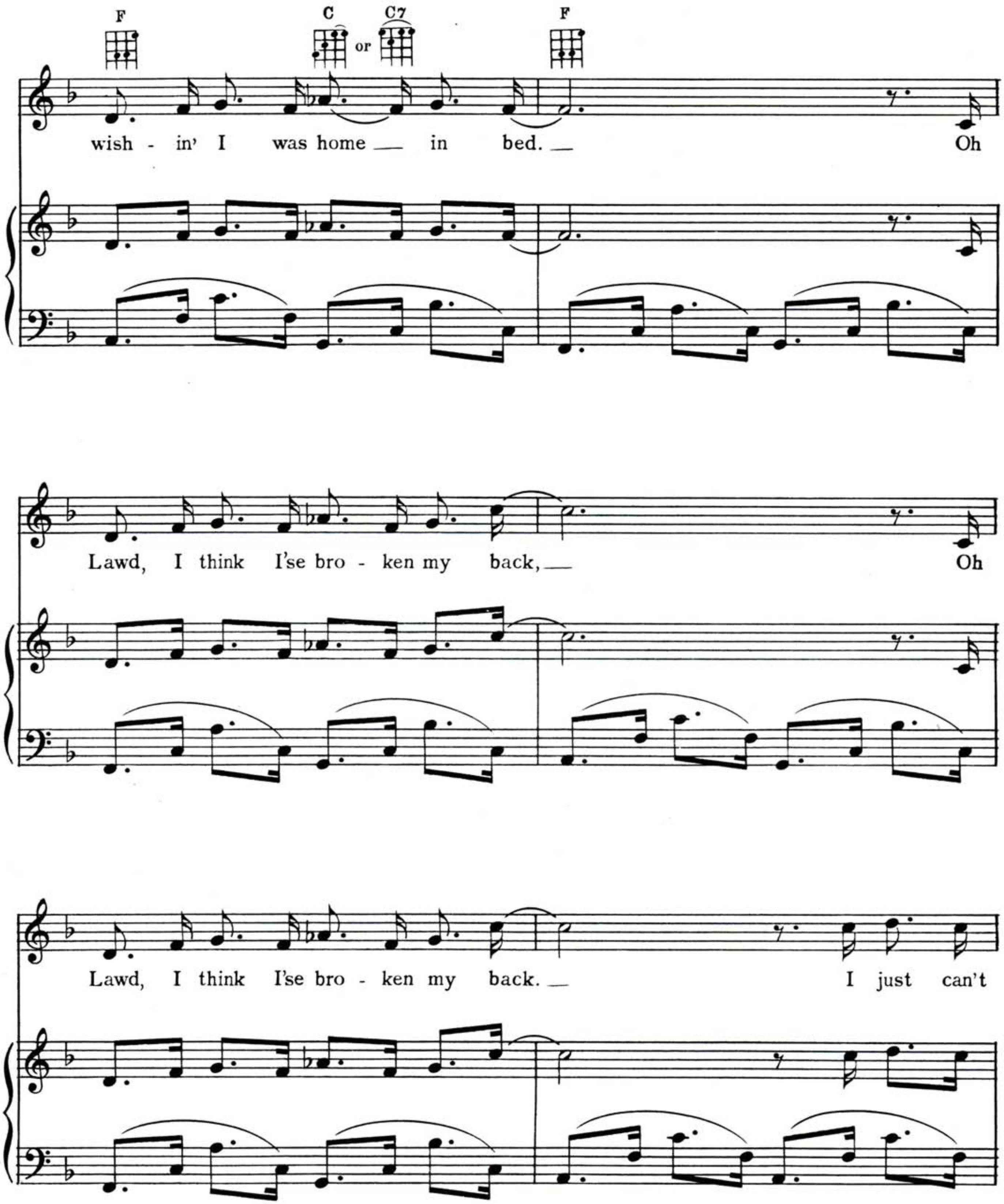
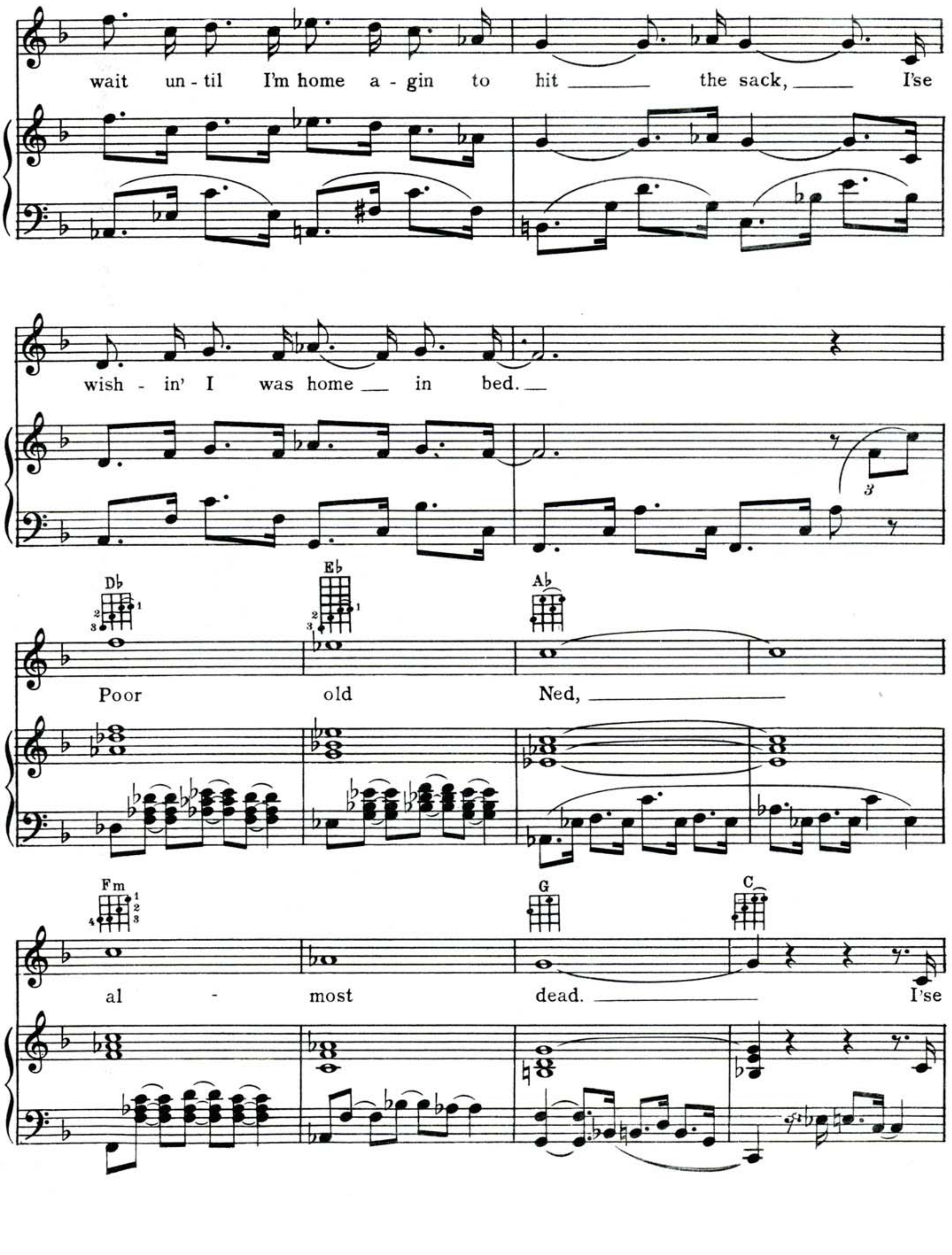
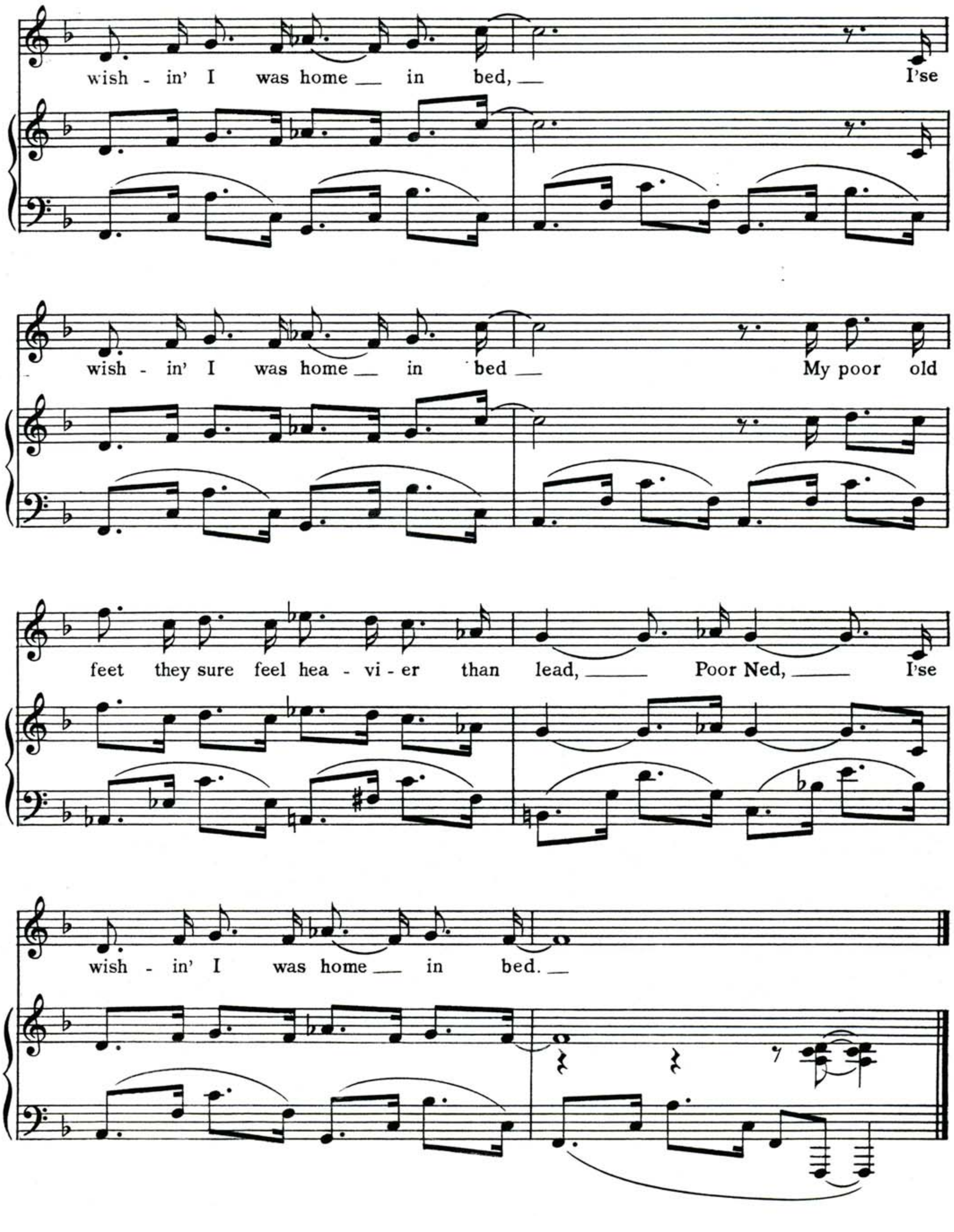

F
C
or
C7
F
wish - in' I was home in bed. Oh
Lawd, I think I'se bro - ken my back, Oh
Lawd, I think I'se bro - ken my back. I just can't

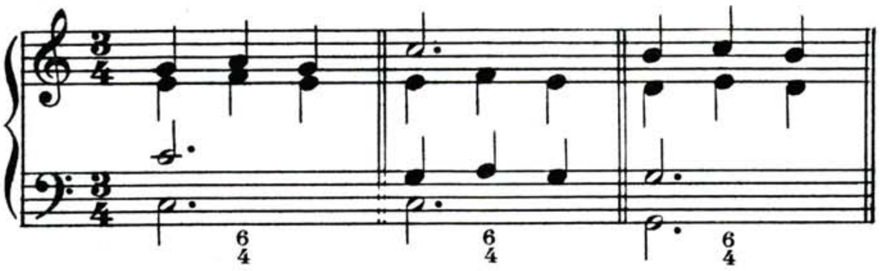

wait un-til I'm home a-gin to hit ___ the sack, ___ I'se
wish-in' I was home ___ in bed. ___
3
Db
Eb
Ab
Poor old Ned, ___
Fm
G
C
al - most dead. ___ I'se


wish - in' I was home __ in bed, __ I'se
wish - in' I was home __ in bed __ My poor old
feet they sure feel hea - vi - er than lead, ___ Poor Ned, ___ I'se
wish - in' I was home __ in bed. __

SECOND INVERSION PROGRESSIONS (continued)

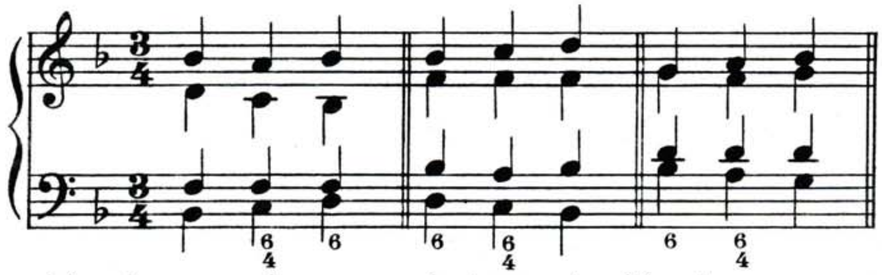
So far you have used the second inversion only on an accented beat.

ON AN UNACCENTED BEAT, THE SECOND INVERSION OF A CHORD MAY BE USED AS AN EMBELLISHMENT OF A TRIAD ON THE SAME BASS TONE. HOLD THE COMMON TONE AND MOVE THE OTHER VOICES UP A 2nd AND BACK.



An embellishment in music is adding a harmonic trimming to a basic chord. There are many forms of the embellishment which you will learn in later lessons. One of these is the passing tone which is not part of the essential harmony, but which serves to connect the basic chords and make a smoother progression. Passing chords serve the same purpose.

ON AN UNACCENTED BEAT, THE SECOND INVERSION OF A CHORD MAY BE USED BETWEEN A TRIAD AND ITS FIRST INVERSION, OR THE REVERSE. HOLD THE COMMON TONE, MOVE ONE VOICE IN CONTRARY MOTION TO THE BASS, AND MOVE THE OTHER VOICE DOWN A 2nd AND BACK.



Improvising is composing on an instrument without a score or previous preparation. Have you tried improvising at the keyboard? It is one of the most valuable ways to stimulate your creative powers. As you would ramble through the countryside without referring to every inch of your road map, so you can ramble through your musical route from tone to tone and chord to chord. It will not always be the shortest way nor the most logical way but it may please your fantasy at the moment. Decide on a key, start with the tonic chord and keep going. Return to the tonic chord occasionally so as not to lose the keytone. Finally, play a cadence and end your improvisation. Use your previous knowledge of chord progressions in choosing

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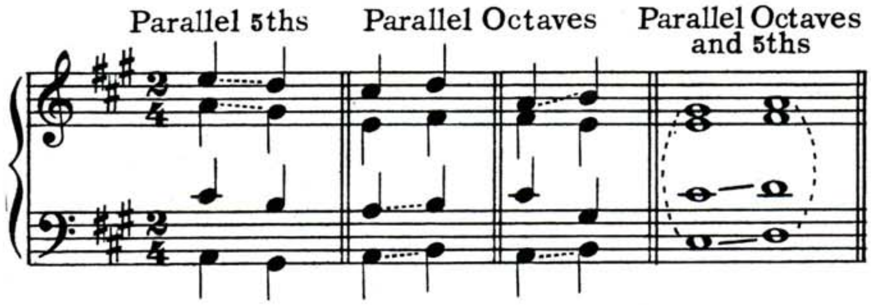
your chords. Just as you would search for a rolling country-side, a lofty mountain peak, a cliff-studded shore or a waving field of daisies, you must search for pleasant sounding chords and surround them with chords that complement them.

Remember the strong chord progressions, the occasional inversion, the simple and beautiful melodic line and the pattern of phrases that result in form. Improvise with a feeling of freedom within the law, searching with confidence for more and more new emotions and reaching with security for the ability and experience of expressing yourself adequately.

Parallel 5ths and octaves in the progression of voice parts are not sanctioned by theorists of harmony and counterpoint. There are four distinct parts moving at the same time, and as soon as two voices move in the same direction, one of these voices loses its individuality and only serves as a reinforcement of the other voice. Contrast is the best incentive for interest.



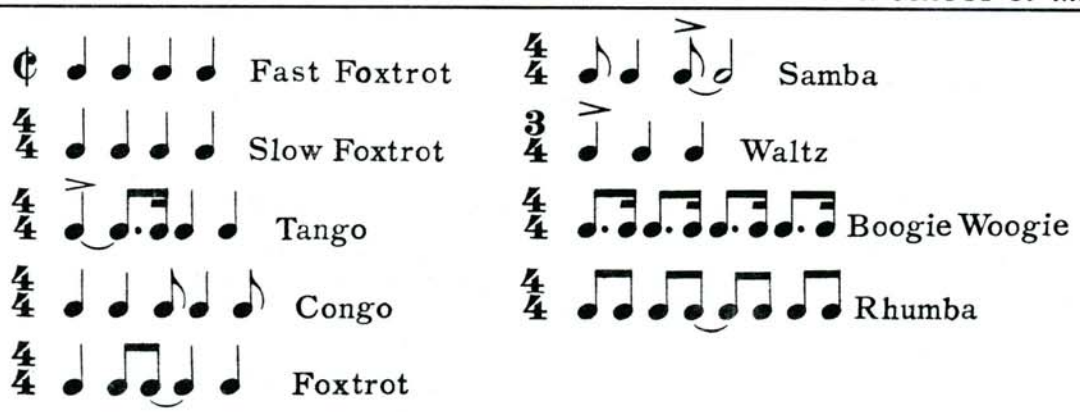
Other intervals may occasionally move in parallel motion when a special effect is required such as parallel 4ths which create an eerie effect. The progression from a diminished 5th to a perfect 5th is also sometimes permitted.

Later, you will use parallel 5ths and octaves in instrumental and vocal music but first you must learn to write strict four part voice harmony. Freedom in emotional and atmospheric effects comes with experience.

Basic Jazz Rhythms

Here are a few basic jazz rhythms. Beat them out with a pencil on a hard table until you feel each rhythm. Be able to identify each rhythm with the type of popular piece or dance that it fits. Count these rhythms out loud until you have memorized them and can feel them without counting.

Remember, these are basic rhythms forming a pulse or beat in the bass for the many complicated and intricate syncopated rhythms that occur above it in the melodic line. Each rhythm is one measure of beats. Repeat each rhythm at least four times to get the true flavor of the syncopation.



Listen to a jazz band or a radio program and try writing the basic rhythm. Remember what it represents. Was it a tango, boogie woogie, ballad or foxtrot? Could you write an original melody to the same rhythm? Of course, you can write anything you wish with a little application of the knowledge you have and a lot of patience. Go to it.

If you succeed in writing what you feel is a plausible popular piece at this time, you may send it to the Harmony Department for criticism. Suggestions and re-writing are the best way to learn. When your manuscript is returned to you, correct it as suggested, rewrite it and then profit by your mistakes on the next piece you write. Never feel you have written a perfect piece of music. Desire for improvement is the mental and spiritual food for the growth of a composer's development.

"THE PAUSE THAT REFRESHES"

After you have completed the writing lesson that follows, put down your pencil, put aside the Course and let the lengthy but necessary rules "sink in."

After a few days or a week, when you see the mists of progressions clearing away and the well outlined forms of your musical map take shape again, go back and read through each lesson as if you had never studied it.

It was Thomas Edison who said that success is the result of 90 percent perspiration and 10 percent inspiration. You can master a subject only by molding and remolding the forms of your own creation. Each time you go back and do it over again, you improve not only the product, but your own ability of "personal expression within the law."

Some students change the saying, "Try, try again." to "Why? Why again?" The answer to *why* can only be found in the action *try*. As the wise old professor put it, "It isn't the saying but the doing that counts." Repetition reveals perfection. Don't give up on a point you do not understand until you find the clue to the solution and the answer to your question. If you have given every possible effort to solving the problem and it still remains, write to the Advisory Service at the School.

WRITING LESSON

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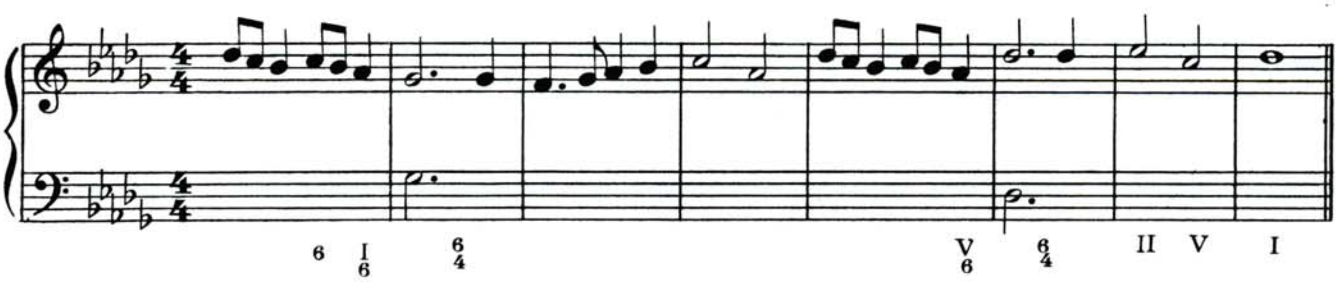

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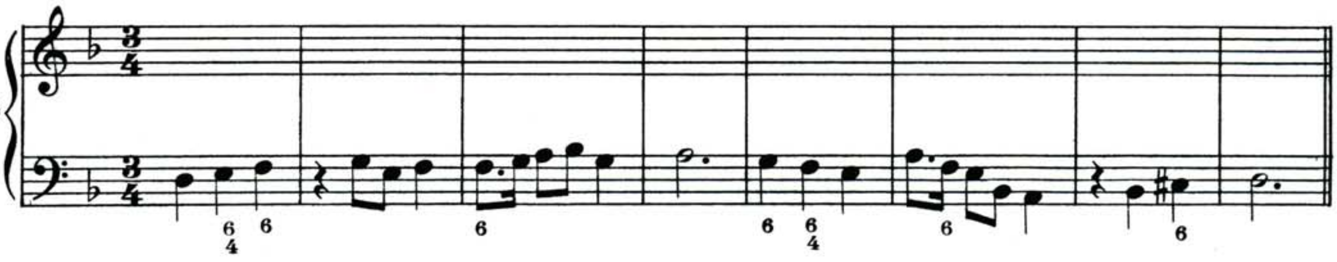

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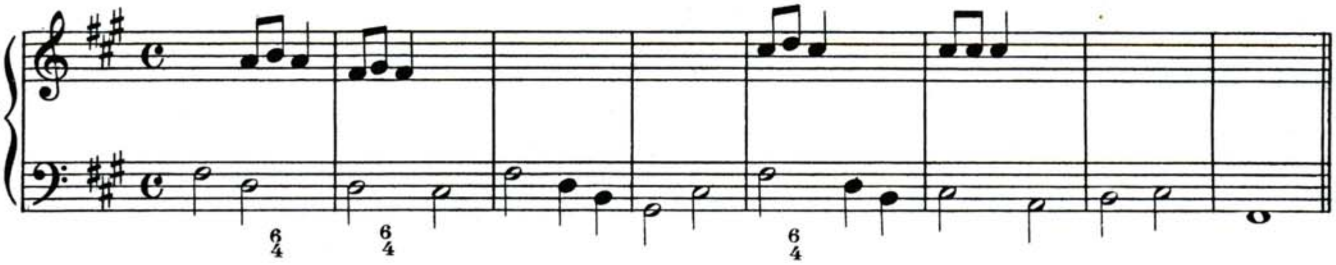

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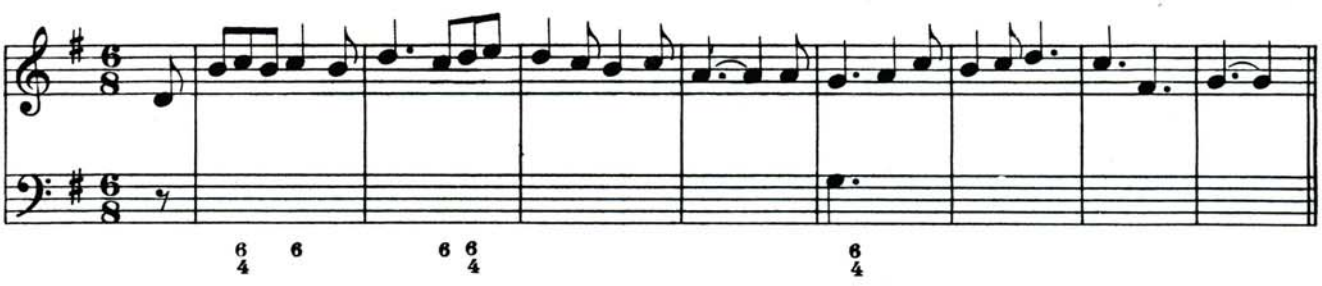

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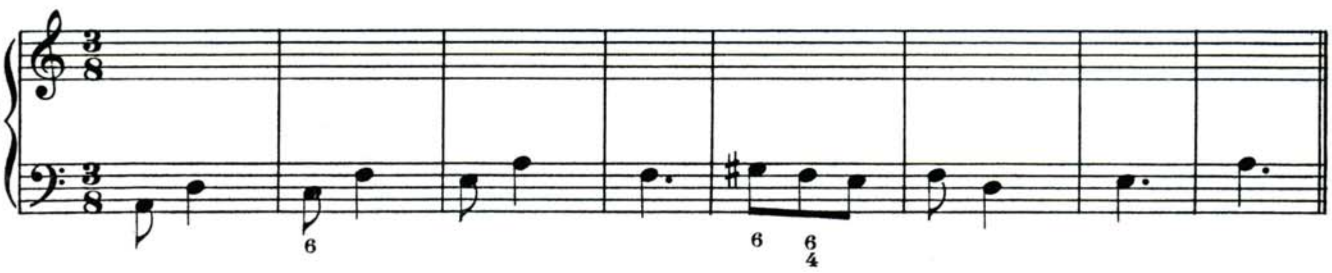

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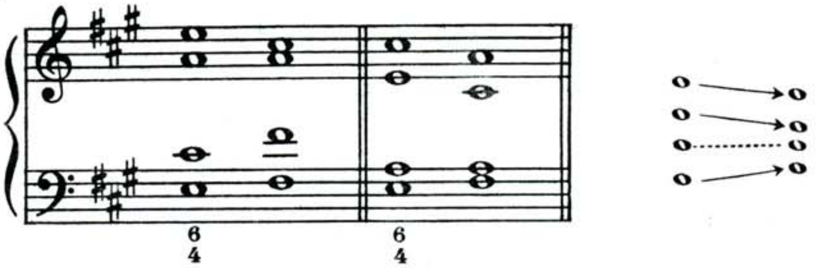
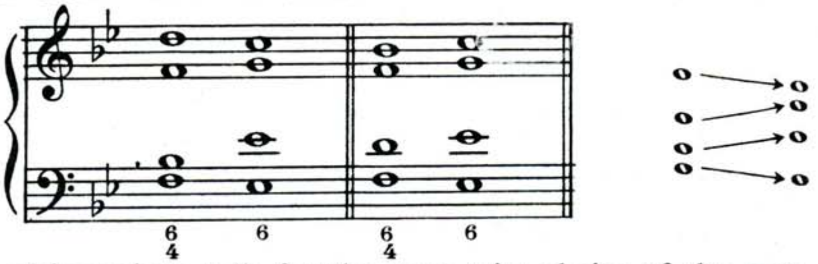
SECOND INVERSION (concluded)

There is still another progression for the second inversion.

THE BASS OF A SECOND INVERSION MOVES UP A 2nd TO A FUNDAMENTAL CHORD. KEEP THE COMMON TONE AND MOVE THE DOUBLED NOTES IN CONTRARY MOTION.



THE BASS OF A SECOND INVERSION MOVES DOWN A 2nd TO A FIRST INVERSION. MOVE THE DOUBLED TONES IN CONTRARY MOTION.



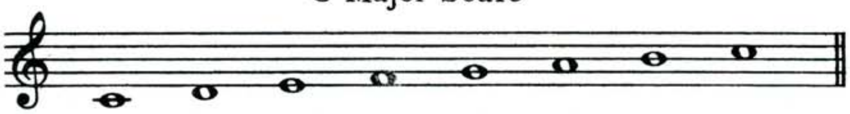
The use of inversions calls for the same wise choice of the composer. Too many inversions in a row create a weakness to the progression in that the absence of the root of the chord in the bass lessens the feeling of a home tonality and security. It also tends to make the progression just as monotonous as when many fundamental chords are used in succession. A balance between roots and inversions can be had by applying all inversion rules and using them moderately and where they sound best.

PARALLEL MINOR

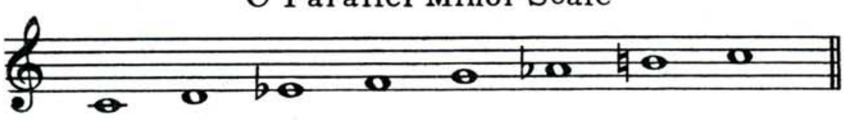
You have learned the relative minor keys and how they are formed from the major keys.

IF A MINOR SCALE BEGINS ON THE SAME DEGREE AS A MAJOR SCALE, IT IS CALLED THE PARALLEL MINOR.

C Major Scale



C Parallel Minor Scale



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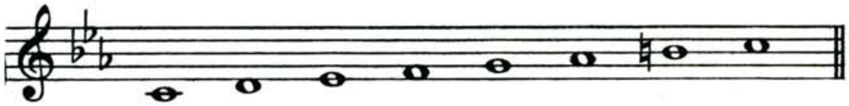
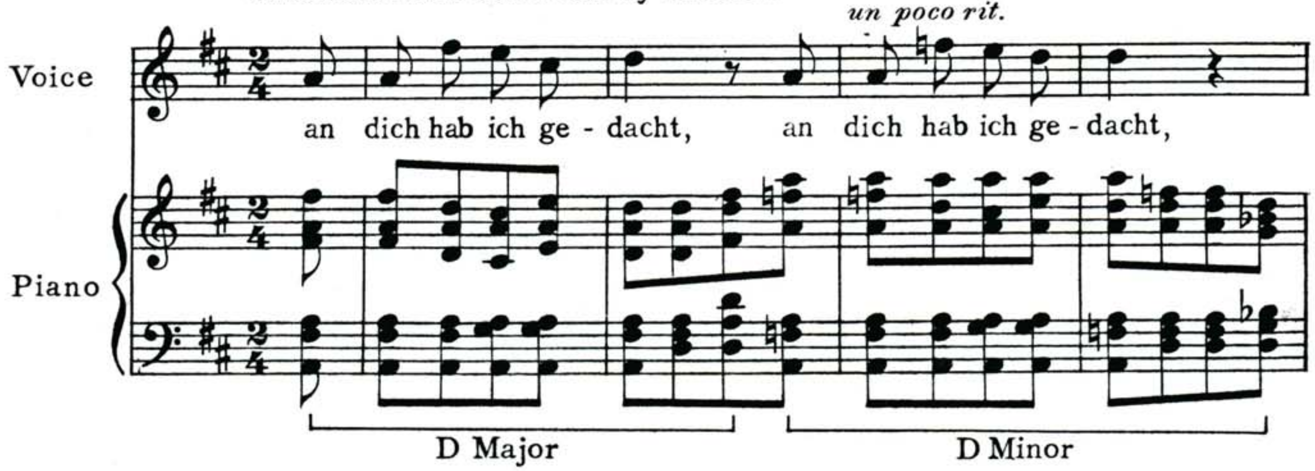
Notice that the parallel minor scale does not retain the key signature of its parallel major. The key signature remains the same as the *relative major and minor*.

C Minor Scale { Parallel to C Major / Relative to E♭ Major



This scale is also sometimes called the homotonic minor. There are times when a parallel minor is used to contrast with a parallel major.

4 measures from Gute Nacht by Schubert



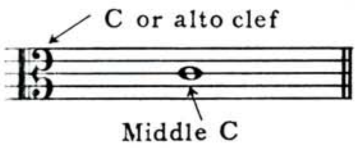
ORCHESTRATION—STRING QUARTET

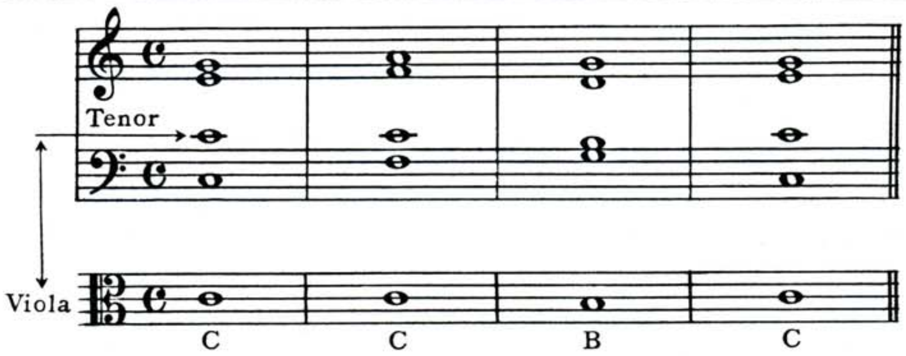
So far, you have written only a piano score. Music is not confined to the piano. You have the possibilities of all the modern instruments at your disposal. The enjoyment of harmony is increased when you can write for all instruments.

A symphony orchestra is composed of three main sections in addition to the percussion section (drums and rhythm instruments). These three sections are strings, woodwinds and brasses.

The string section of the symphony includes first violin, second violin, viola, cello and double bass. There are usually eight cellos and the first violin section often has three times this many players. There can be six double bass; the second violins and violas number proportionally to balance the other string instruments.

A string quartet is a musical ensemble of first violin, second violin, viola and cello. When arranging music for string quartet, write the part for each instrument on a separate staff. This is called Open Score. The first and second violin parts use the treble clef. The cello uses the bass clef. However, the viola, which is a little larger than the violin and lower in tone, uses a new clef called the C or alto clef.

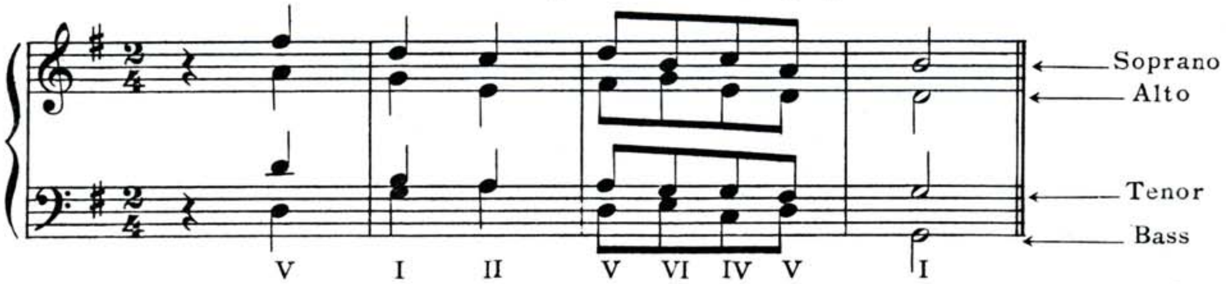


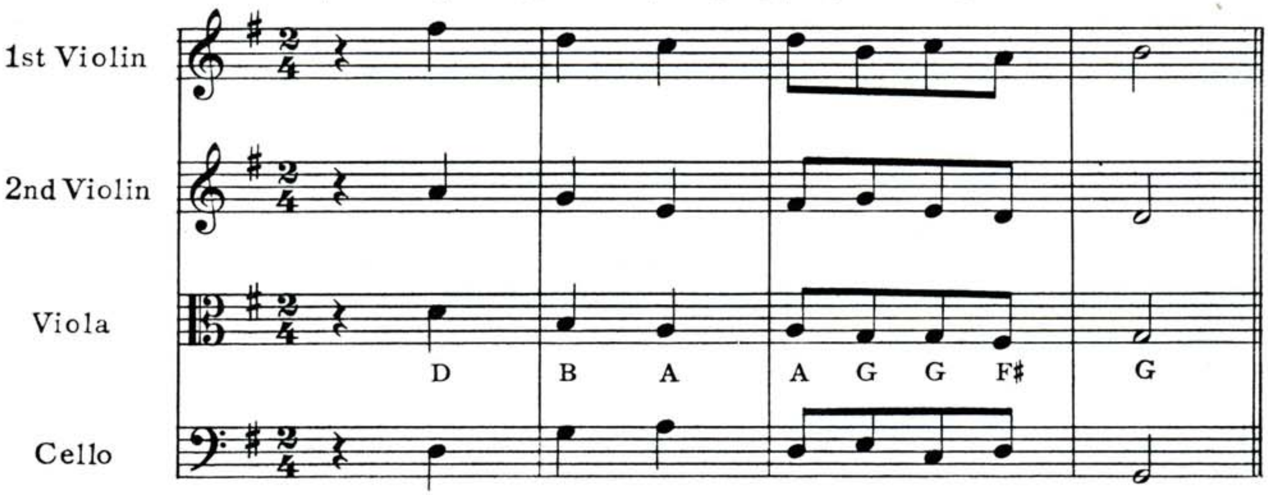


It places middle C on the third line of the staff. You can transfer all the notes from the piano score to viola or C clef by keeping in mind where middle C is located on the staff of the C clef.

The viola is the tenor of the string quartet. The first and second violins are the soprano and alto, and the cello is the bass.

When writing for the string quartet, use open score which means that each part is written on a separate staff. The Great Staff is sometimes called compressed score. Here is an example harmonized on the Great Staff and then transferred to open score for string quartet. This is called transposition or arranging.





Apply open score to the exercises in the writing lesson indicated for string quartet.

BEETHOVEN AND THE RASUMOWSKY QUARTETTE

WHAT TO ANALYSE

In studying the compositions of the masters and learning how each adapted the rules of progression to his own particular style and mood, it is wise to begin with the classic composers of the seventeenth and eighteenth centuries. The compositions of Bach, Handel, Haydn, Mozart, Beethoven and Schubert define the harmonic voices clearly. The musical architecture of this period is less complex and interwoven than that of later period composers. We will consider these when you have had more writing experience.

In any creative work, it is to the best advantage of the student to constantly study the masterpieces that have developed throughout the history of the chosen art. Only by analysing the important products of the greatest composers can the harmony student expect to mold his own musical forms so that they follow an evolutionary pattern and advance the progress of the art of composing.

WRITING LESSON

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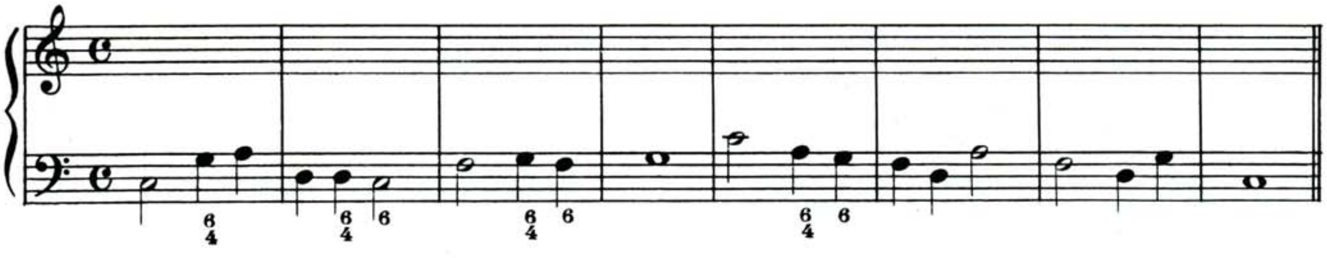

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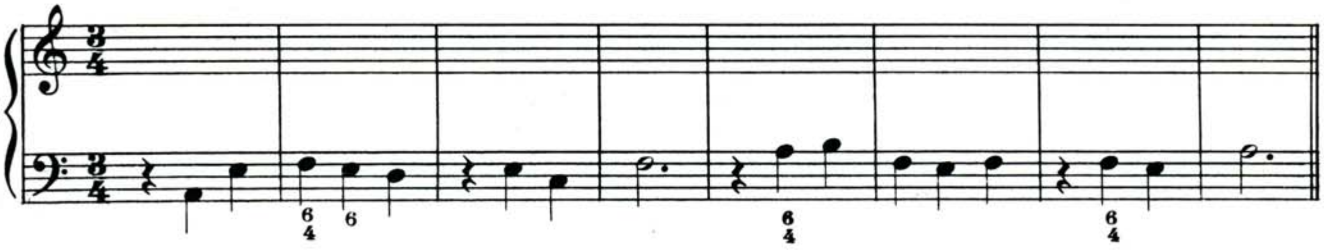
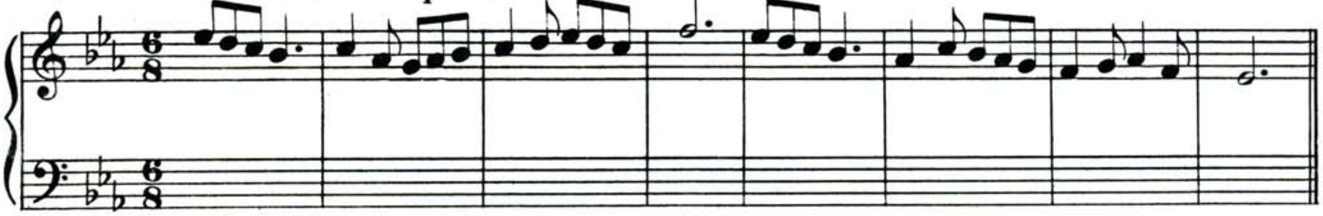


Harmonize and include four $\frac{6}{4}$ chords.

3


Harmonize; then arrange for String Quartet. (Open Score)

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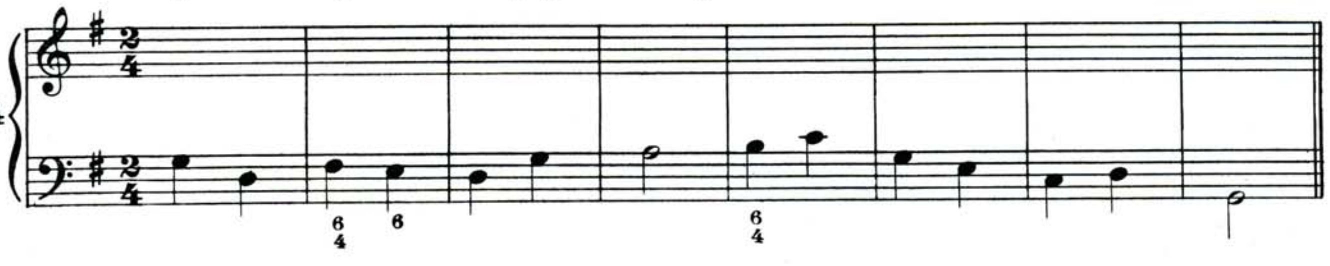

Harmonize; then arrange for String Quartet. (Open Score)

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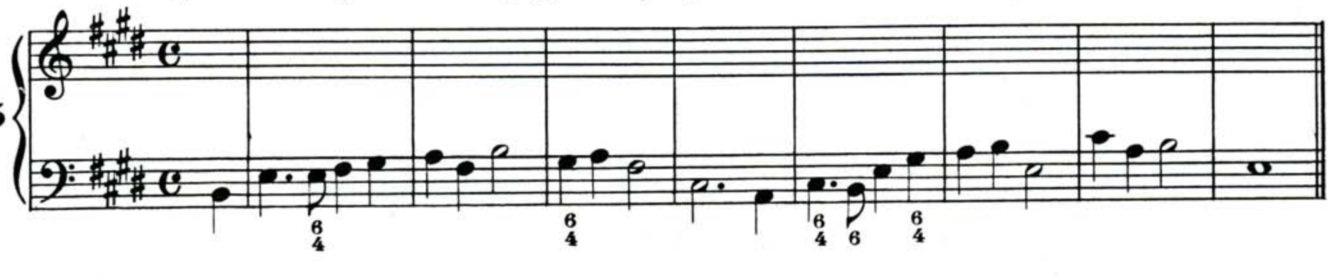

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MODERN HARMONY EXAMINATION No. 7

Covering Lessons 25-30

Name ....

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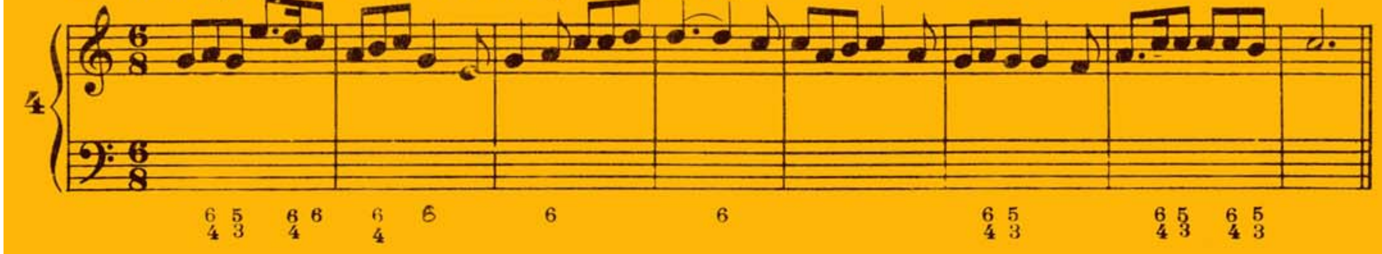
City................ State ....

Fill in the above information. Send the completed examination to the U. S. School of Music, Port Washington, N. Y. This exam will be corrected and returned to you.

Harmonize; then arrange for String Quartet (Open Score)

Harmonize; then arrange for String Quartet (Open Score)

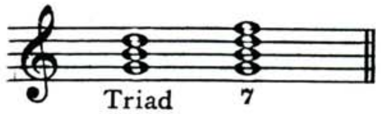


SEVENTH CHORDS

So far you have studied chords with three different notes, one note being doubled to form four part harmony.

However, chords may have more than three different notes. The simplest of these is the seventh chord.

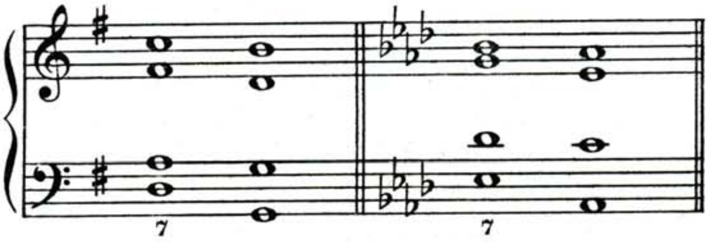
If you add a tone which is a third above the fifth of any triad, you produce a Seventh Chord. The figured bass symbol is 7.



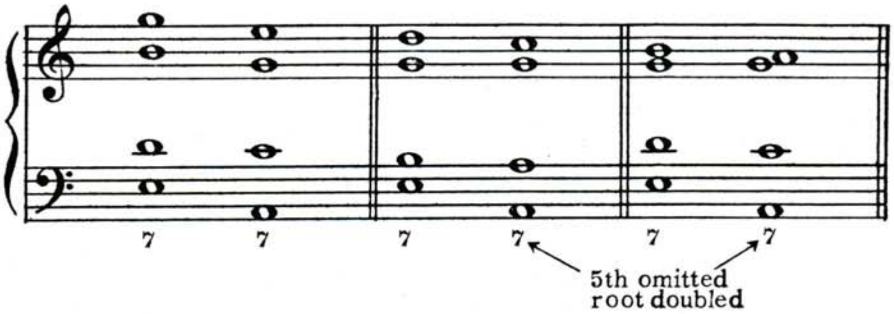
The Seventh Chord is classified as a dissonance, not because it sounds unpleasing to the ear but it must be resolved or followed by a consonance.

The normal resolution of the bass of a Seventh Chord is down a 5th.

THE ROOT OF A SEVENTH CHORD MAY PROGRESS DOWN A 5th TO THE ROOT OF A CHORD. THE THREE UPPER VOICES MOVE DOWN.



THE ROOT OF A SEVENTH CHORD MAY PROGRESS DOWN A 5th TO ANOTHER SEVENTH CHORD. ALL VOICES MOVE DOWN; OR, KEEP THE COMMON TONE AND MOVE THE OTHER VOICES DOWN.



In the Seventh Chord, the 5th may be omitted and the root doubled. This is often a necessity in order to assure the 5th tone appearing in the tonic chord. To attempt to include a 5th in both chords might result in parallel fifth intervals or faulty voice leading.

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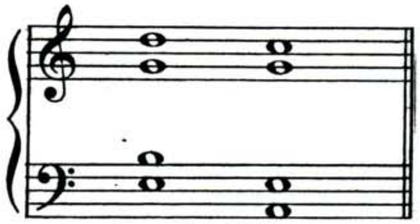
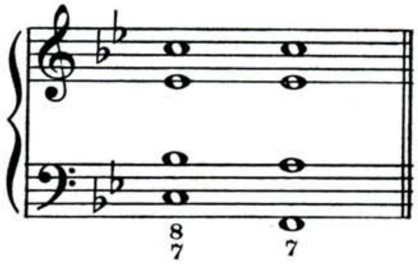


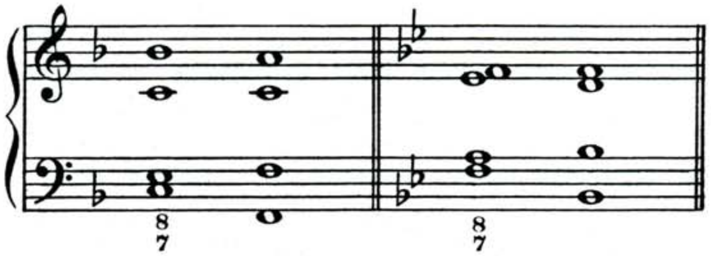
Parallel fifth
in bass clef

The figured bass symbol for the Seventh Chord with the root doubled is $\frac{8}{7}$.

TO RESOLVE A SEVENTH CHORD WITHOUT A 5th TO ANOTHER SEVENTH CHORD, KEEP THE COMMON TONE AND MOVE THE OTHER VOICES DOWN.

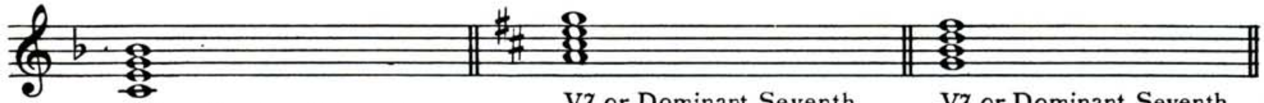


TO RESOLVE A SEVENTH CHORD WITHOUT A 5th TO A TRIAD, KEEP THE COMMON TONE, MOVE THE 3rd OF THE CHORD UP AND THE REMAINING VOICES MOVE DOWN.



RESOLUTIONS OF SEVENTH CHORDS ARE TREATED ALIKE IN MAJOR AND MINOR DUE TO THE RAISED 7th IN MINOR RESULTING IN THE SAME CHORD ON THE DOMINANT IN BOTH MAJOR AND MINOR.

The two most frequently used Seventh Chords are the V^7 and VII^7. The V^7 is commonly called the *Dominant Seventh chord* as it is built on the V or Dominant degree of the scale. The VII^7 is sometimes substituted for the V^7 because it contains all the notes of the V^7 except the root. This will be explained further in later lessons. All seventh chords are classified as Secondary with the exception of the Dominant Seventh.

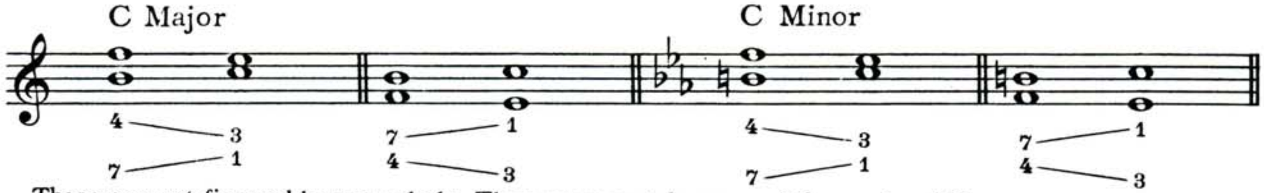


V⁷ or Dominant Seventh (Key of F) — V⁷ or Dominant Seventh (Key of D) — V⁷ or Dominant Seventh (Key of C)

The most common resolution of the V^7 is to the Tonic.

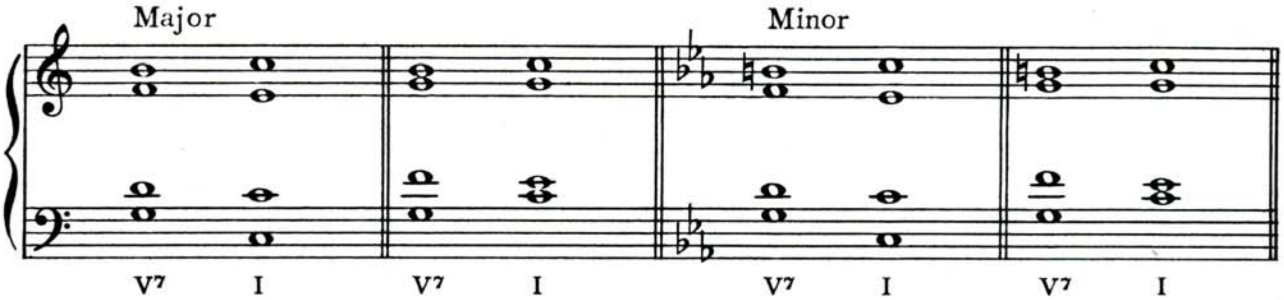
IN RESOLVING V^7 TO I, WHEN THE ROOT MOVES DOWN A FIFTH ALLOW THE 7th TONE OF THE SCALE, WHICH IS CALLED THE LEADING TONE, TO RISE ONE DEGREE TO THE TONIC, AND MOVE THE 4th DEGREE DOWN ONE TONE TO THE 3rd OF THE SCALE.

(Notice that the calculation here is defined only within the degrees of the scale of the key signature or tonic chord.)



These are not figured bass symbols. They represent degrees of the scale of C.

Here is the same resolution in four part harmony.



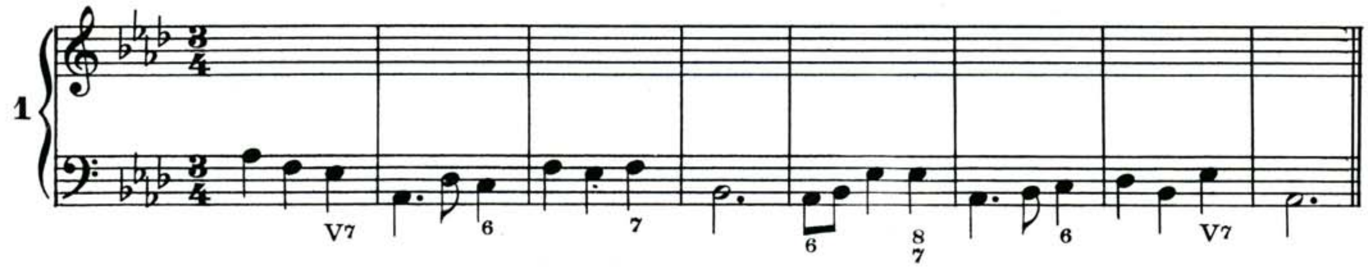
Notice that you can omit the 5th and double the fundamental in the seventh chord.

The resolution V^7–I is the authentic cadence that ends a phrase or musical sentence. By using the seventh in the V chord, you strengthen the authentic cadence. The "pull" to the I chord is stronger when the V^7 precedes it.

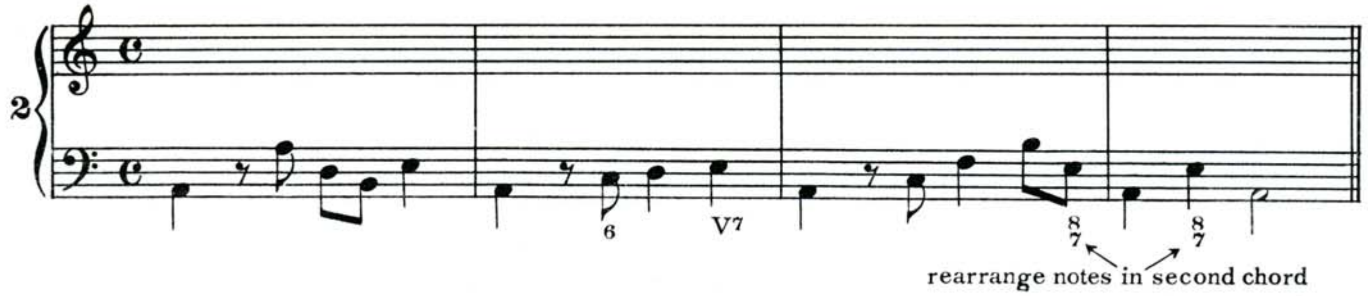
Try playing the resolution V–I and follow it by a resolution V^7–I. Play these two resolutions, alternately, many times. Notice how much stronger the harmonic "pull" is in the V^7 chord than in the normal V chord. The seventh chord demands to be resolved.

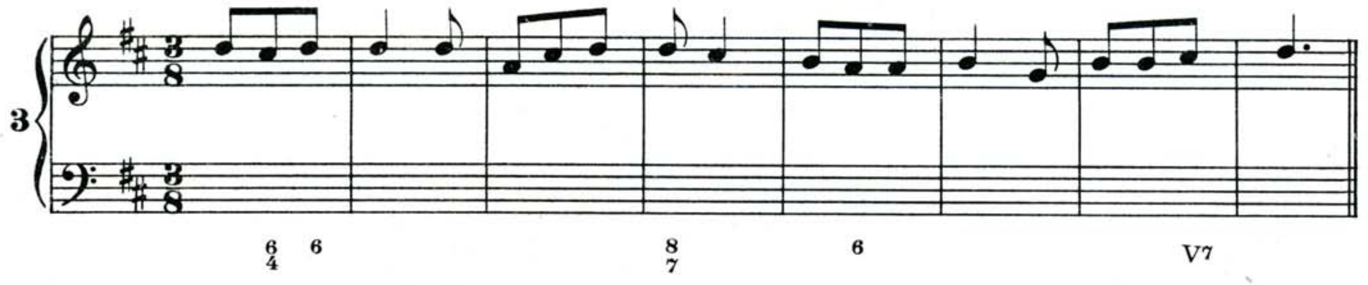
All good chord progressions depend on the success of the composer in choosing chords that follow and precede in a manner so that they complement each other, fit into the musical picture with "harmonic team work" and stand, not only for themselves, but for their fortifying relationship to the other chords in the progression.

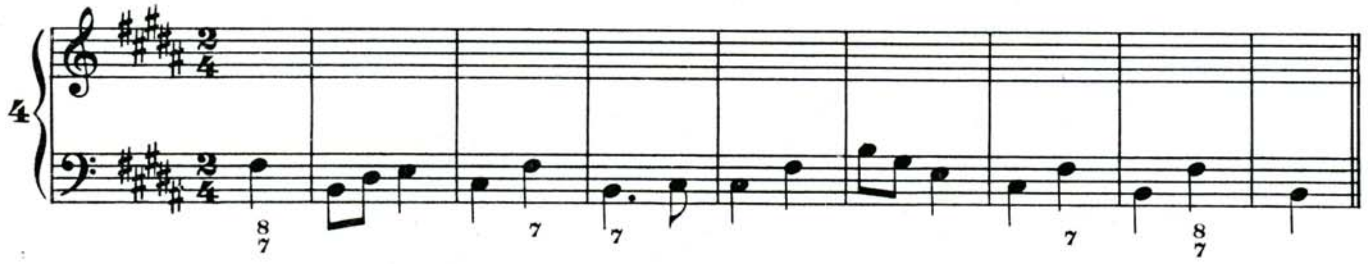
WRITING LESSON

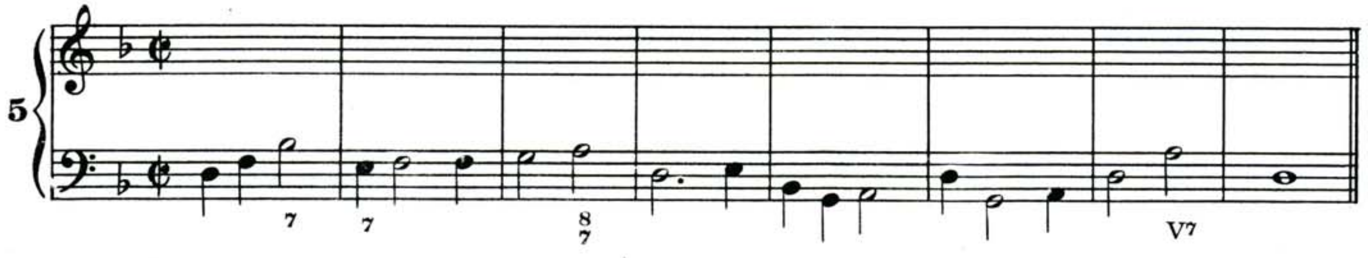


Remember the raised seventh in A minor









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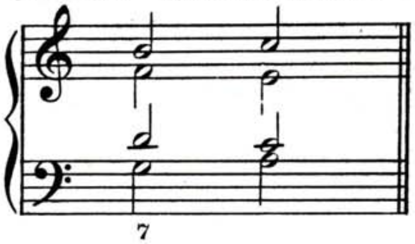
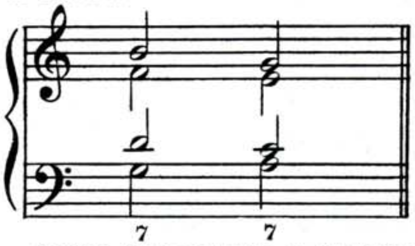
SEVENTH CHORDS (continued)

In the previous lesson, you studied the resolutions of the Seventh Chord when the bass moves down a 5th interval. To continue, let's examine the Seventh Chord resolutions when the bass does not move a 5th.

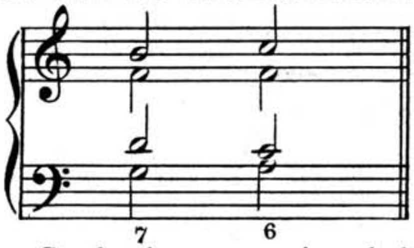
THE ROOT OF A SEVENTH CHORD MOVES UP A 2nd TO A TRIAD. THE 3rd OF THE CHORD MOVES UP AND THE OTHER VOICES MOVE DOWN.



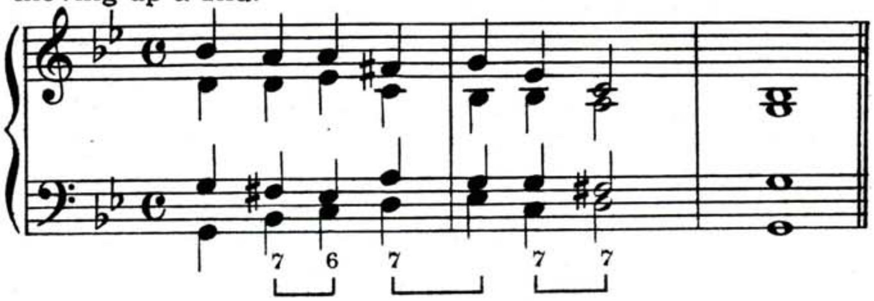
THE ROOT OF A SEVENTH CHORD MOVES UP A 2nd TO ANOTHER SEVENTH CHORD. THE UPPER VOICES MOVE DOWN.



THE ROOT OF A SEVENTH CHORD MOVES UP A 2nd TO A FIRST INVERSION. THE 7th DEGREE OF THE CHORD REMAINS STATIONARY.



Study the progressions below with the bass of the Seventh Chords moving up a 2nd.



Notice that this progression of the Seventh Chord cannot be V^7–I. It can be I–II, II–III, III–IV, IV–V and V–VI.

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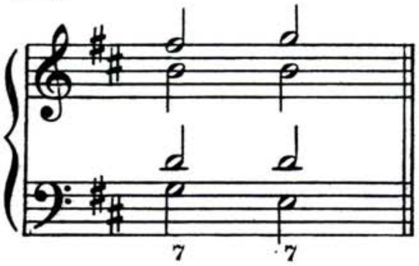
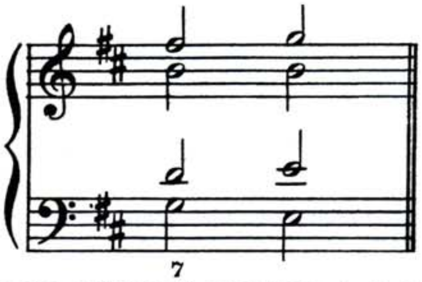
Still another movement for the bass of a Seventh Chord is a 3rd down.

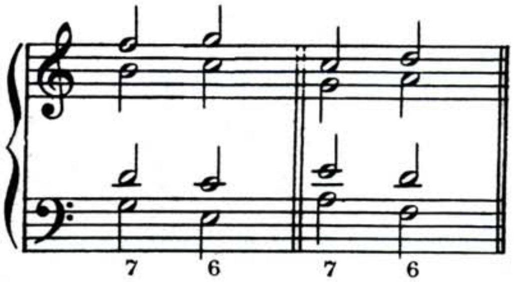
THE ROOT OF A SEVENTH CHORD MOVES DOWN A 3rd TO ANOTHER SEVENTH CHORD. KEEP COMMON TONES AND MOVE 7th OF THE CHORD UP.



THE ROOT OF A SEVENTH CHORD MOVES DOWN A 3rd TO A TRIAD. KEEP COMMON TONE, MOVE THE 7th OF THE CHORD AND OTHER VOICE UP.



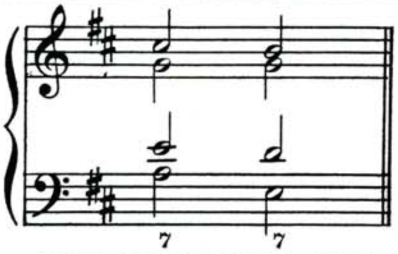
THE ROOT OF A SEVENTH CHORD MOVES DOWN A 3rd TO THE FIRST INVERSION OF A TRIAD. THE 7th OF THE CHORD MOVES UP.



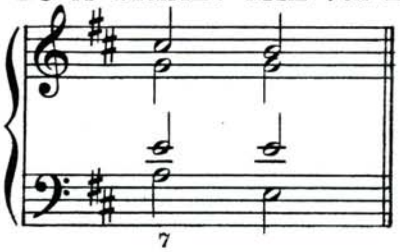
There are many resolutions and possibilities for the Seventh Chord. Study one at a time and practise writing each in all keys. Also, transfer the position of the notes in the Seventh Chords so that each resolution and its rule for moving to the next chord is clear and unforgettable in your mind. It is only by seeing the motion of every individual chord and its resolution that you can combine chords into a harmonic progression without becoming confused.

The Seventh Chord root can also move down a 4th.

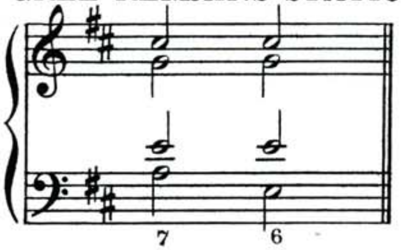
THE ROOT OF A SEVENTH CHORD MOVES DOWN A 4th TO ANOTHER SEVENTH CHORD. THE 7th DEGREE REMAINS STATIONARY.



THE ROOT OF A SEVENTH CHORD MOVES DOWN A 4th TO A TRIAD. THE 7th DEGREE REMAINS STATIONARY.

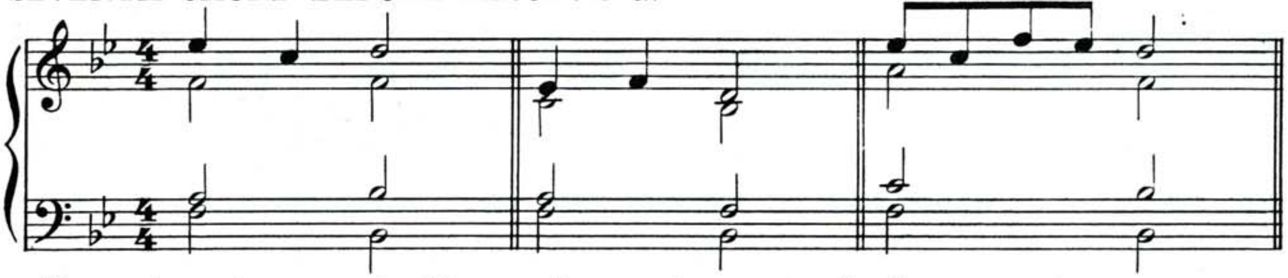


THE ROOT OF A SEVENTH CHORD MOVES DOWN A 4th TO THE FIRST INVERSION OF A TRIAD. THE 7th DEGREE REMAINS STATIONARY.



A general rule for the three possible progressions when the root of the Seventh Chord moves down a 4th is to keep the 7th degree stationary.

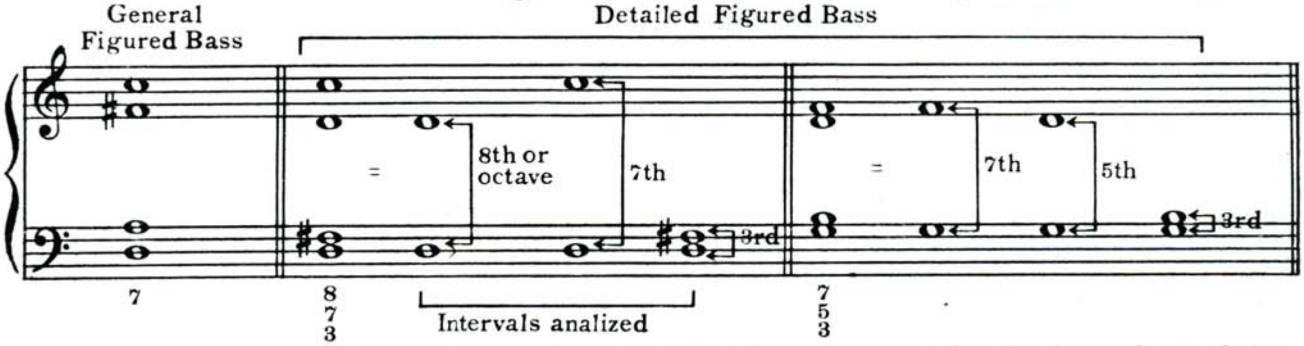
ON WEAK BEATS OR IMPULSES OF A MEASURE, THE 7th TONE OF A SEVENTH CHORD MAY PROGRESS TO THE NEAREST NOTE OF THE TRIAD OF THE SAME SEVENTH CHORD BEFORE RESOLVING.



The moving voice may extend to more than one tone as seen by the last example. Here is where originality and a good ear are assets to the composer. This is an excellent way to enhance or elaborate a good melody.

Thus far, you have learned a minimum of symbols. They have been 6, $\frac{6}{4}$, $\frac{5}{3}$, 7 and $\frac{8}{7}$. Let us take a moment to analyse how a bass figuration is determined. If you have occasion to write harmonizations aside from this Course, and adhering to other methods of teaching, you will be familiar with the figuration symbol and can figure the identification of the chord easily.

For instance, in using figured bass symbols for the seventh chords, the following numbers represent the various positions of the chord.

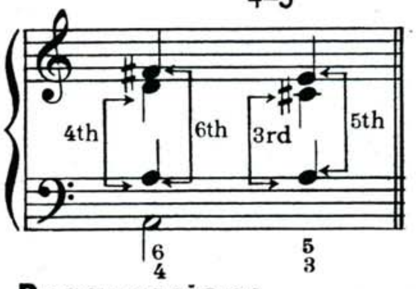


Later, you will learn more figured basses for the inversions of the Seventh Chords.

Notice that the purpose of the numbers is merely to identify the several collective intervals in the chords with numbers pertaining to the individual intervals.

In the case of the Seventh Chord, the 7th degree is the identifying note. Therefore, its position in relation to the bass note is necessary in the figured bass. It is not necessary to indicate every interval of a chord in the figured bass. There can be a general indication such as 6 for the first inversion and 7 for Seventh Chords. Often two intervals will appear in the bass symbol and the other intervals are understood because they move into place as a result of elimination.

For instance, this illustration only needs the symbols $\frac{6-5}{4-3}$.



Summary of Seventh Chord Progressions

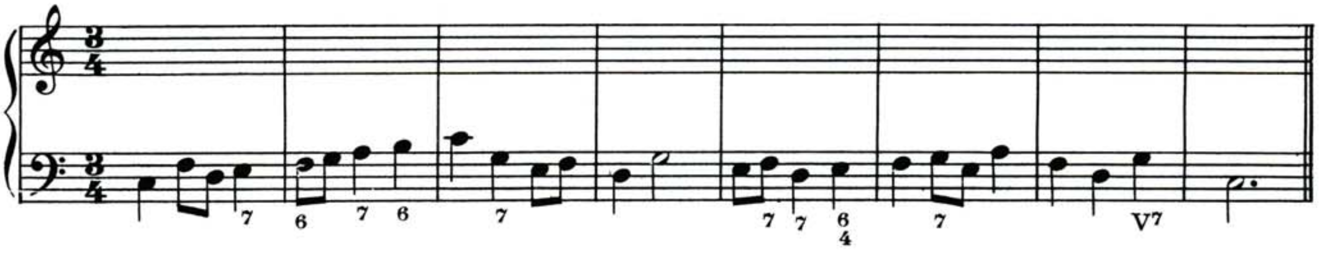
To summarize this lesson, the root of a Seventh Chord moves up a 2nd to a triad, first inversion of a triad or another Seventh Chord.

The root of a seventh chord moves down a 3rd to a triad, a first inversion of a triad, or another Seventh Chord.

The root of a Seventh Chord moves down a 4th to a triad, a first inversion of a triad, or another Seventh Chord.

WRITING LESSON

1



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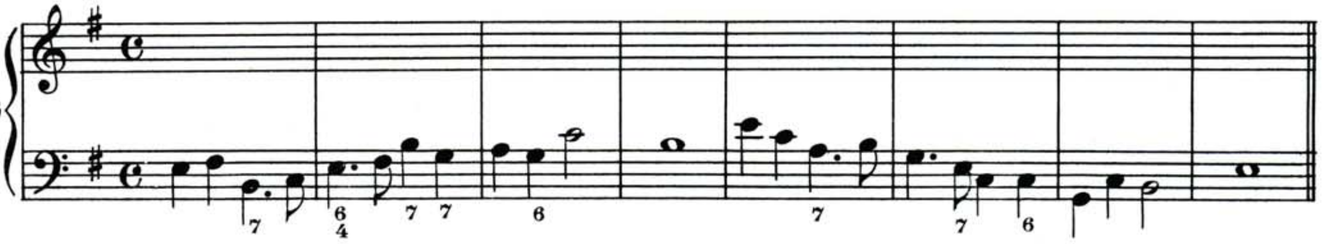

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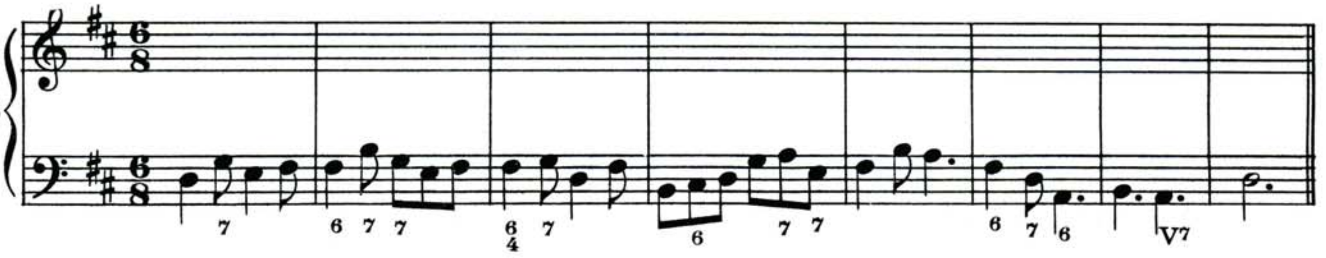

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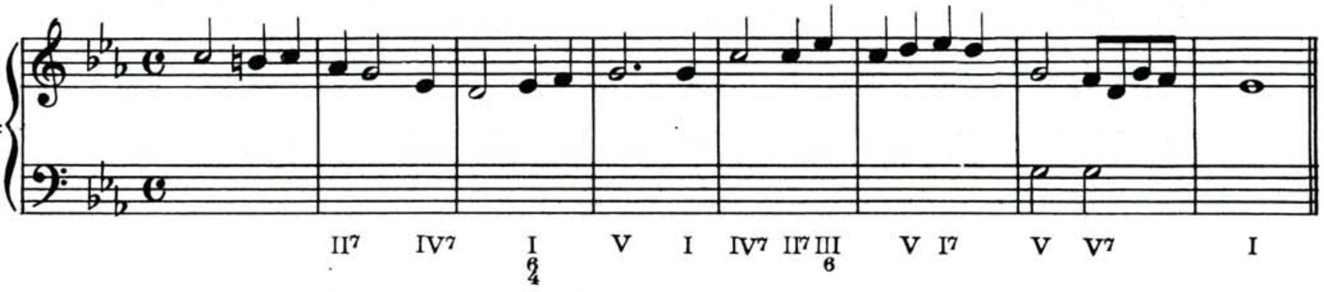

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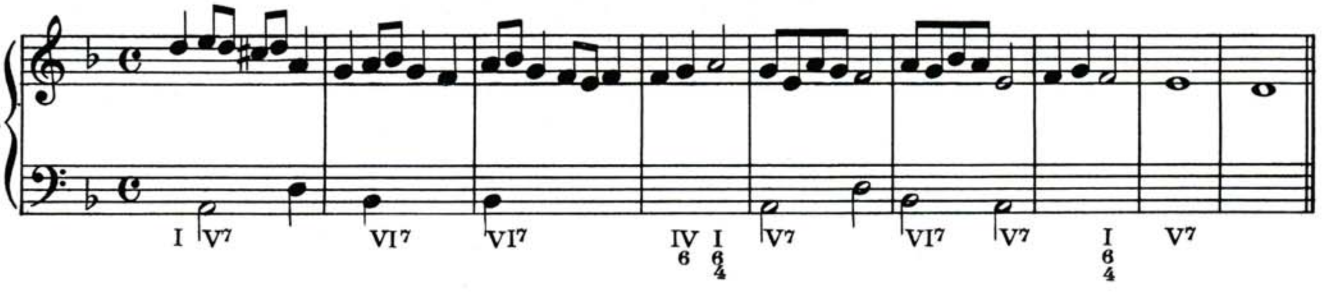

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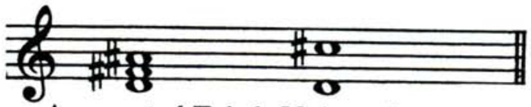
Check this writing lesson by going over it several times yourself.

TYPES OF SEVENTH CHORDS

The chord of the seventh is not only valuable to a harmonization for the strength it gives to the movement, but it is pleasing to the ear. There are many kinds of Seventh Chords in common use. Here is a list that you can refer to when the need arises:

D^{L7}

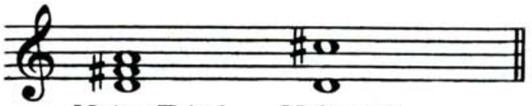
Augmented Large Seventh—an augmented triad and a major 7th.



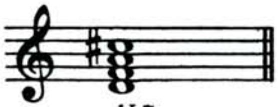
Augmented Triad Major 7th

D^{L7}

Major Large Seventh—a major triad and a major 7th.

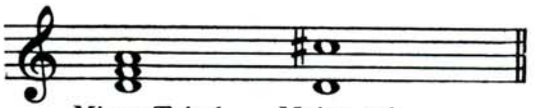


Major Triad Major 7th

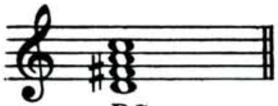


d^{L7}

Minor Large Seventh—a minor triad and a major 7th.

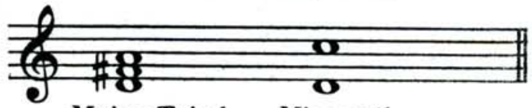


Minor Triad Major 7th

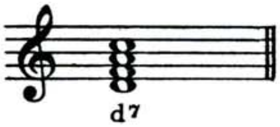


D^{7}

Dominant Seventh — a major triad and a minor 7th.

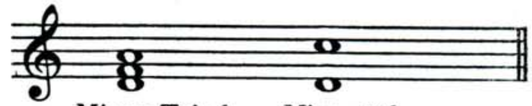


Major Triad Minor 7th

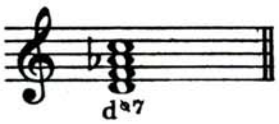


d^{7}

Small Seventh—a minor triad and a minor 7th.

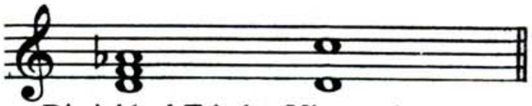


Minor Triad Minor 7th

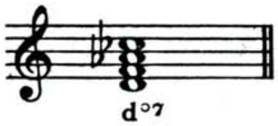


$d^{ø7}$

Half-Diminished Seventh—a diminished triad and a minor 7th.

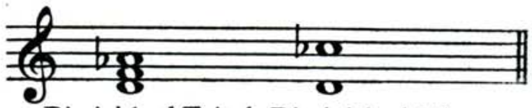


Diminished Triad Minor 7th



$d^{\circ 7}$

Diminished Seventh—a diminished triad and a diminished 7th.



Diminished Triad Diminished 7th

Notice that capital D is used for major chords and small "d" for minor. The ø means that only one of the upper notes is made smaller or diminished and the O shows that both upper notes have been diminished.

It is the variations of scale degrees and interval changes of the four different notes of a Seventh Chord that create so many different types of Seventh Chords.

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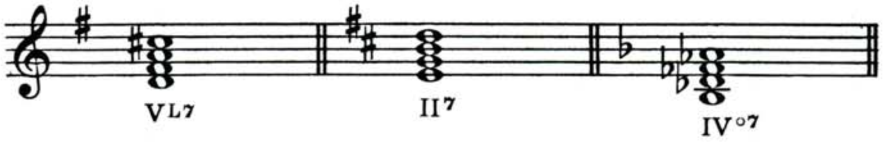
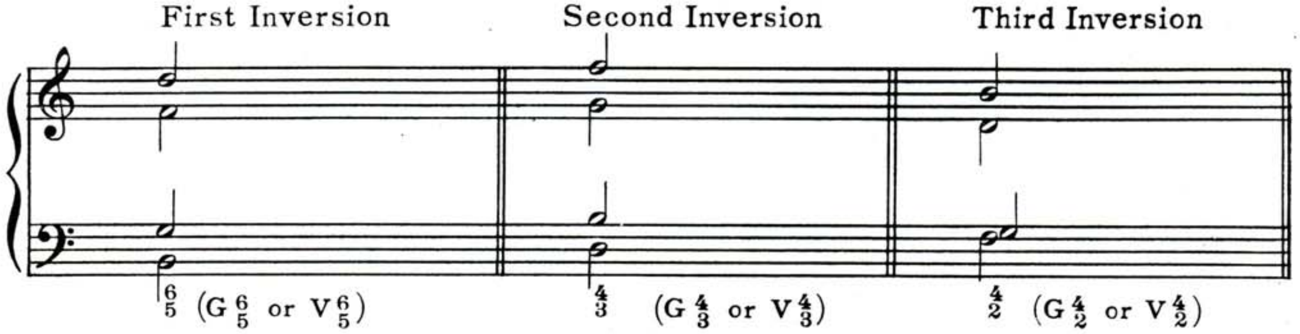
Seventh chords are sometimes labeled by the Roman numeral instead of the letter name. In this case, you consider the key signature to locate the root of the Seventh Chord.



INVERSIONS OF SEVENTH CHORDS

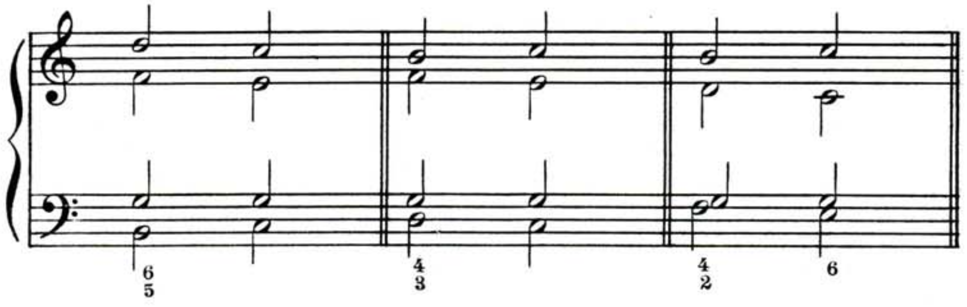
There are three inversions of Seventh Chords: the first inversion with the 3rd of the chord in the bass; the second inversion with the 5th of the chord in the bass, and the third inversion with the 7th of the chord in the bass.

The letter and numeral symbols are:



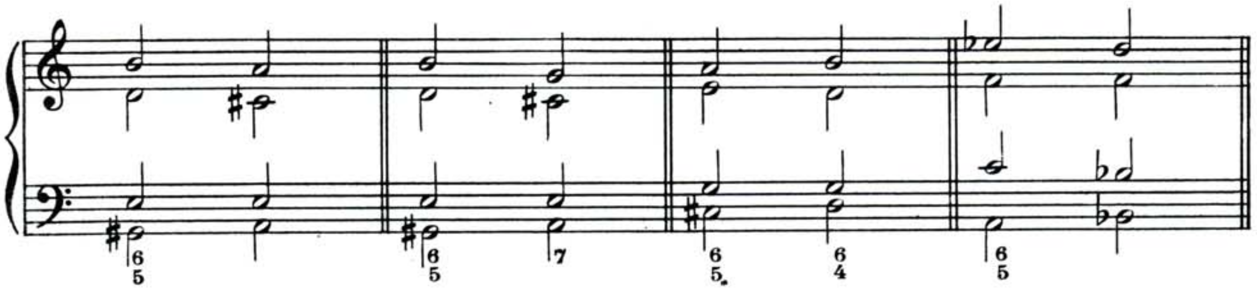
TO RESOLVE THE INVERSIONS OF SEVENTH CHORDS TO TRIADS OR SEVENTH CHORDS:

1. MOVE THE THIRD OF THE CHORD UP TO THE ROOT OF THE CHORD OF RESOLUTION.
2. HOLD THE COMMON TONE.
3. MOVE THE REMAINING VOICES DOWN.



FIRST INVERSION OF SEVENTH CHORDS

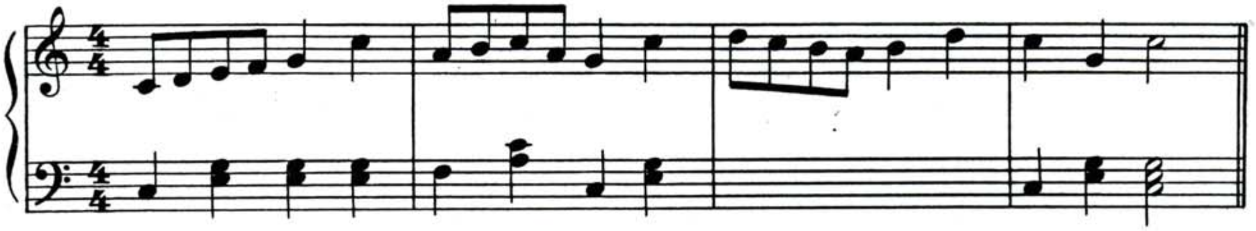
THE BASS OF A FIRST INVERSION OF A SEVENTH CHORD MOVES UP A 2nd TO THE ROOT OF A TRIAD OR A SEVENTH CHORD. A $^{6}_{4}$ CHORD MAY BE SUBSTITUTED FOR A FUNDAMENTAL CHORD IN THE RESOLUTION.



One of the easiest and most interesting ways of learning is by imitation. After you have actually copied the pattern of thoughts from your teacher and understand what makes the music "click", it is time to branch out on your own and write music stamped with your own individuality.

In the music below fill in the bass accompaniment imitating the pattern suggested in the first two measures of each melody. Use the correct accompanying chord in each measure and check the results by playing both hands together when the melody and accompaniment are complete. You will soon recognize a wrong accompaniment by the scraping dissonance of the harmonies.

1



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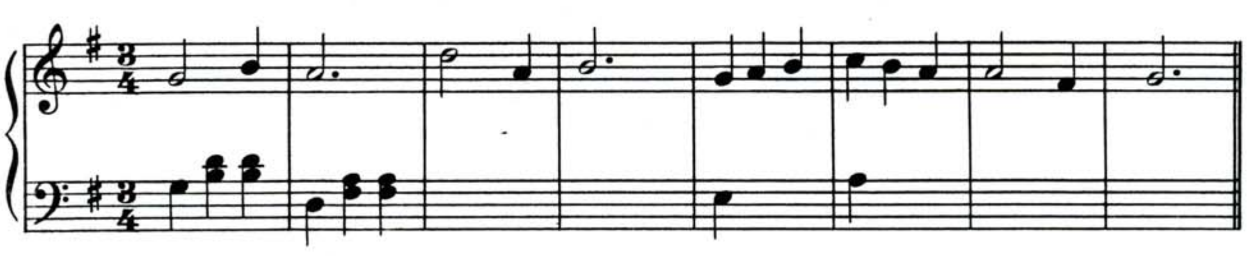

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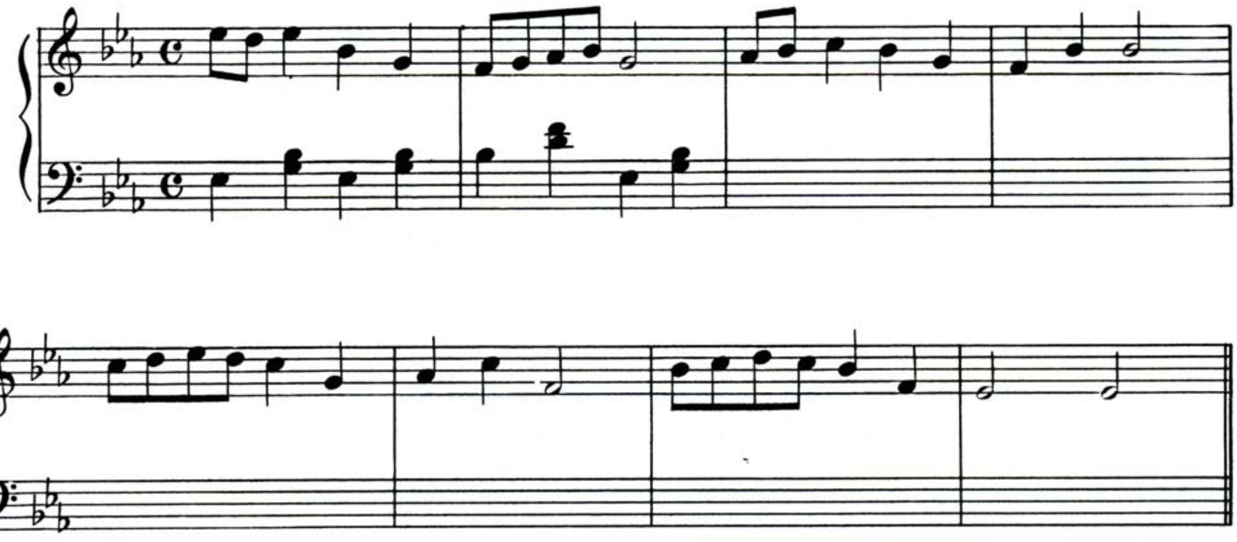

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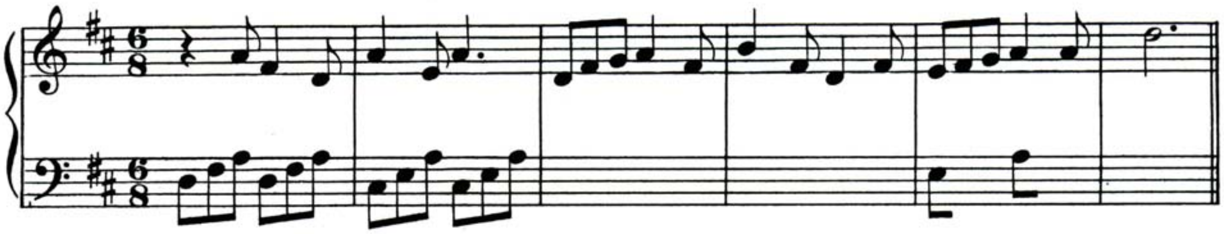


LISTEN WHILE YOU LEARN

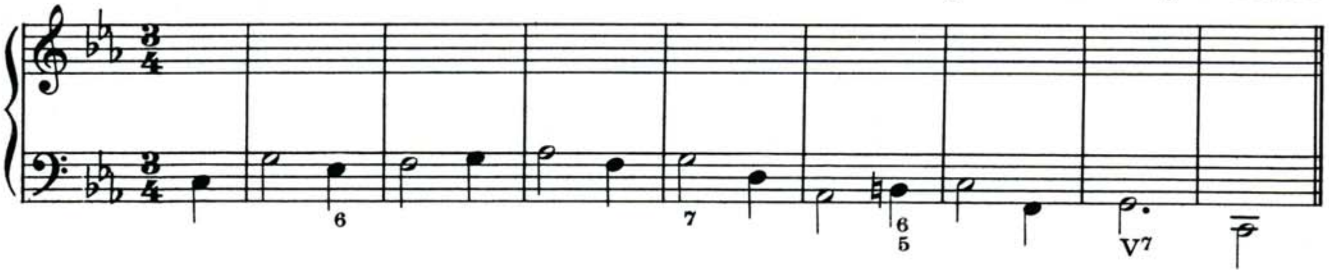
What kind of a music listener are you? As Sigmund Spaeth so clearly put it: "The foot listener . . ., the head listener . . . and the heart listener . . ." are the three types. The foot listener merely enjoys the rhythm and just can't keep his feet still at the sound of music. The head listener coldly calculates form, progressions, phrases, etc. without a spark of feeling or imagination in his approach. As for the heart listener, he can too often be expressed as the "dreamy, drippy sentimentalist who floats around aimlessly in a sea of tone."

Can you combine the three types and become a well balanced foot, heart and head listener? From then on, can you develop your composing on the same level? If you can take in music by this desirable sense combination, then you can give out music in the same manner. Not only will you have the ability to compose in a healthy and stimulating style, but your listeners will more easily accept and understand your music. In fact, they will welcome it.

WRITING LESSON

Passacaglia in C Minor - J. S. BACH

1



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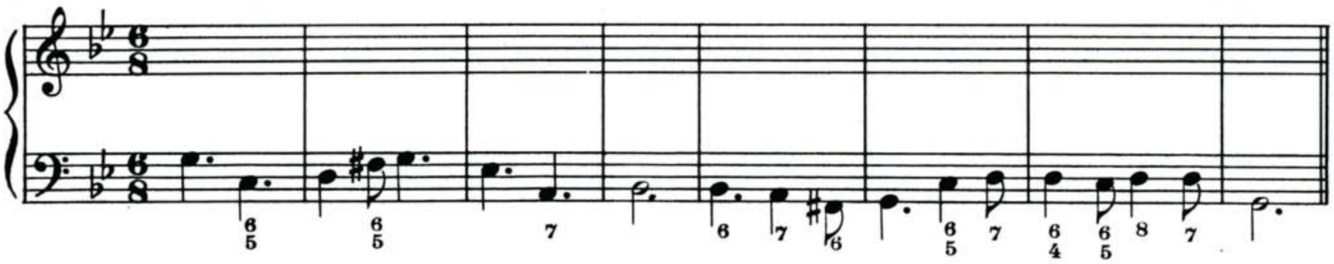
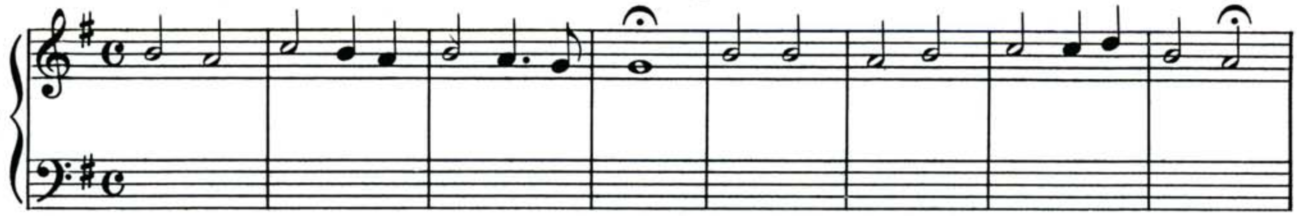
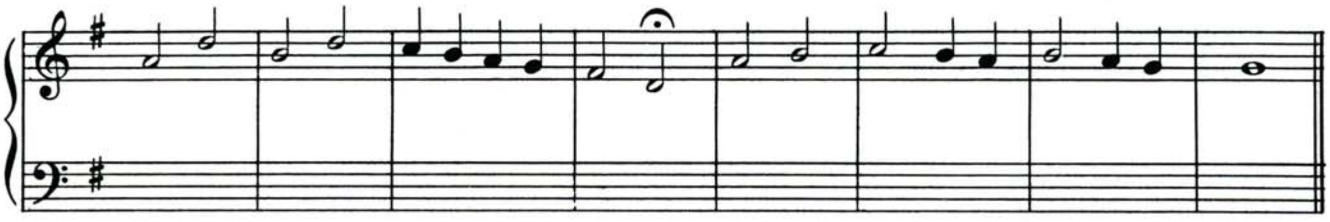


Use first inversions of seventh chords wherever possible.

3





BACH

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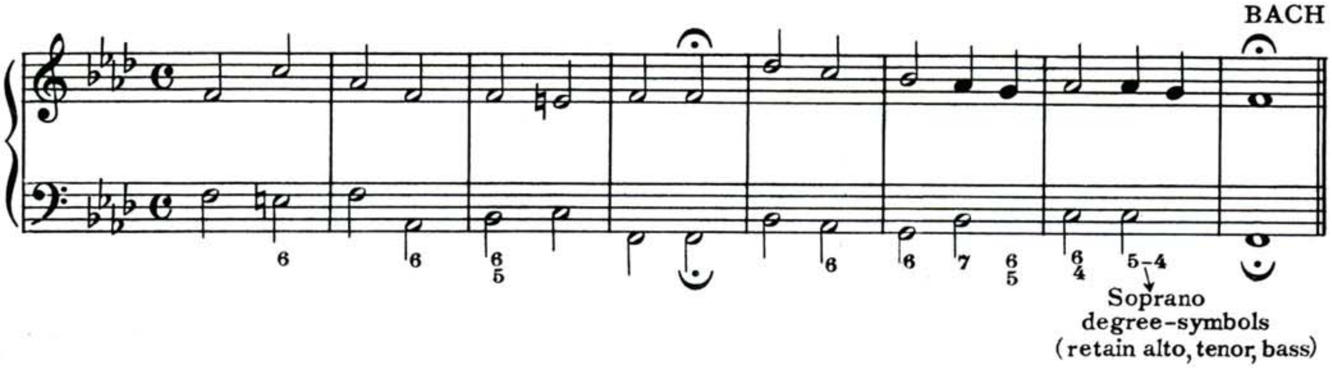

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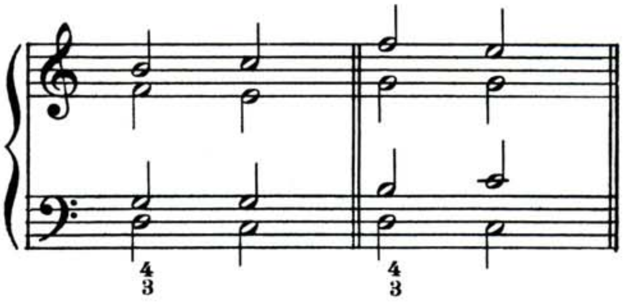
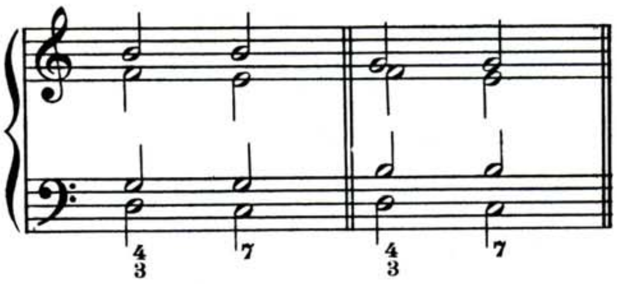
SECOND INVERSION OF SEVENTH CHORDS

At this point, you are probably wondering if the possibilities of the Seventh Chord are really exhaustable. They are! With this lesson, we end the discussion of the Seventh Chord. By its many varied usages, it proves effective in any harmonization.

THE BASS OF A SECOND INVERSION OF A SEVENTH CHORD MOVES DOWN A 2nd TO A FUNDAMENTAL TRIAD.



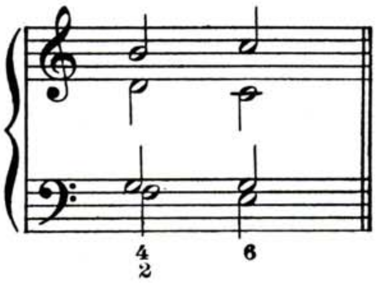
THE BASS OF A SECOND INVERSION OF A SEVENTH CHORD MOVES DOWN A 2nd TO A SEVENTH CHORD.



THIRD INVERSION OF SEVENTH CHORDS

Unlike the triad, the Seventh Chord can have a third inversion due to the four different notes in the chord instead of three.

THE BASS OF A THIRD INVERSION OF A SEVENTH CHORD MOVES DOWN A 2nd TO THE FIRST INVERSION OF A TRIAD.



THE BASS OF A THIRD INVERSION OF A SEVENTH CHORD MOVES DOWN A 2nd TO THE FIRST INVERSION OF A SEVENTH CHORD.

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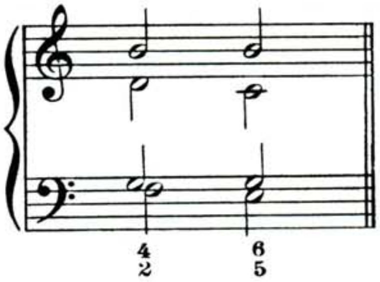
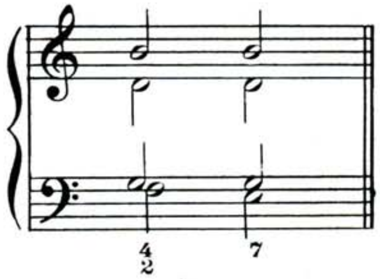


THE BASS OF A THIRD INVERSION OF A SEVENTH CHORD MOVES DOWN A 2nd TO A FUNDAMENTAL SEVENTH CHORD.

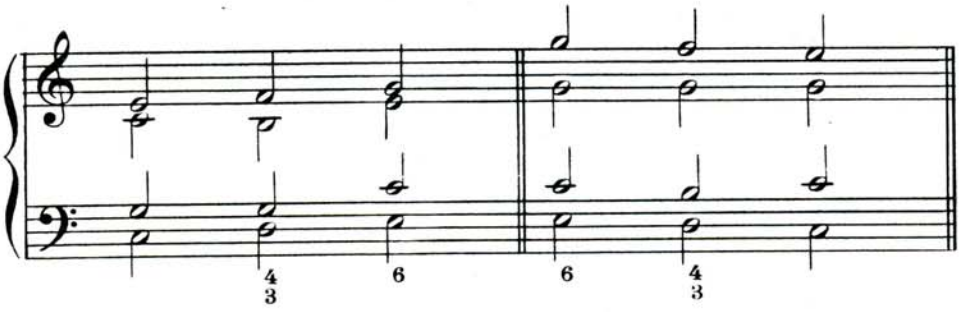


Notice that the bass of all second and third inversions of the Seventh Chord resolve down a 2nd.

PASSING CHORD ON DOMINANT SEVENTH

In any inversion of the dominant seventh, *all* members of the chord must be present. Therefore, doubling is impossible in four part harmony when an inversion of the Seventh Chord appears.

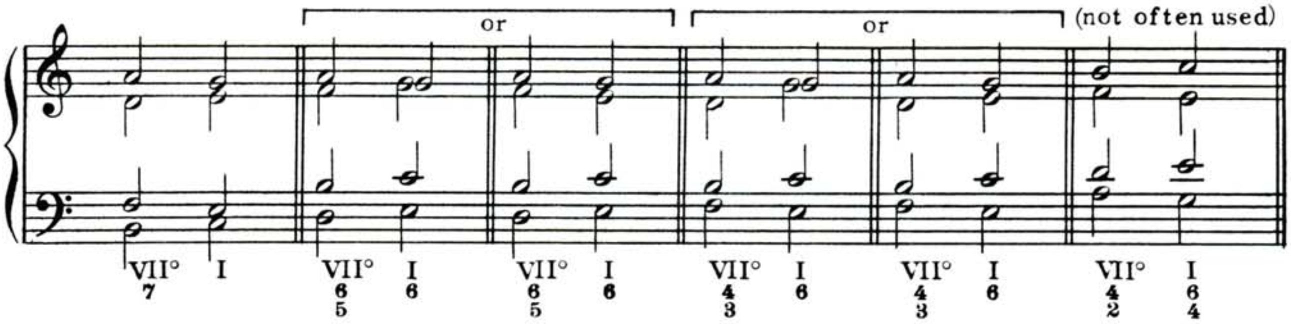
THE SECOND INVERSION OF THE DOMINANT SEVENTH MAY BE USED AS A PASSING CHORD BETWEEN THE TONIC AND ITS FIRST INVERSION OR THE REVERSE. THE 7th OF THE CHORD MOVES IN 3rds WITH THE BASS.



THE LEADING SEVENTH CHORDS

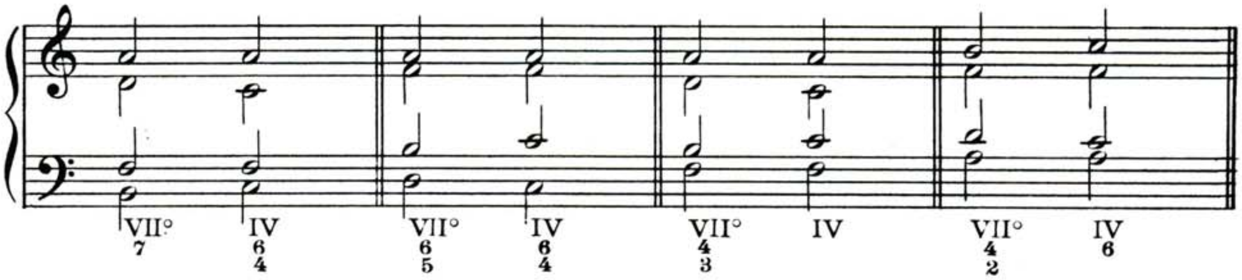
When the fundamental of a seventh chord is on the 7th degree, in either a major or minor key, it is known as the Leading-tone Seventh.

Its resolution has a strong tendency to move to the tonic as a resolving chord.

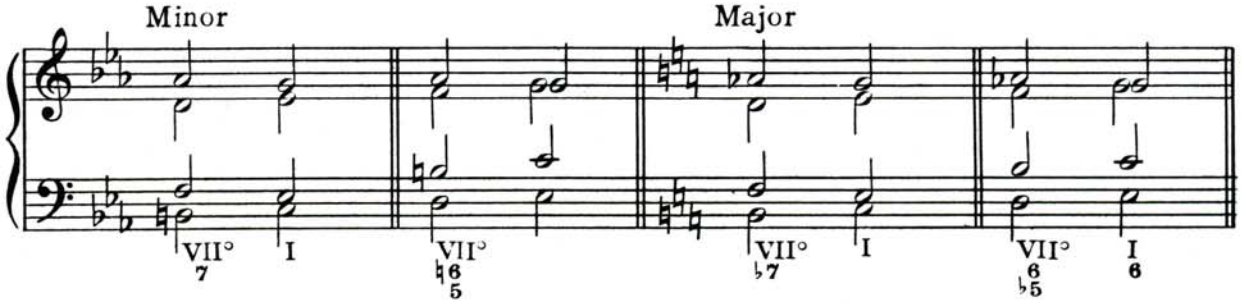


To prevent doubling the third in the first inversion of the tonic chord, the diminished 5th, fundamental and 5th may resolve upwards. For the same reason, the 3rd of the second inversion of the Seventh Chord may leap to the 5th of the tonic chord in unison with the 7th.

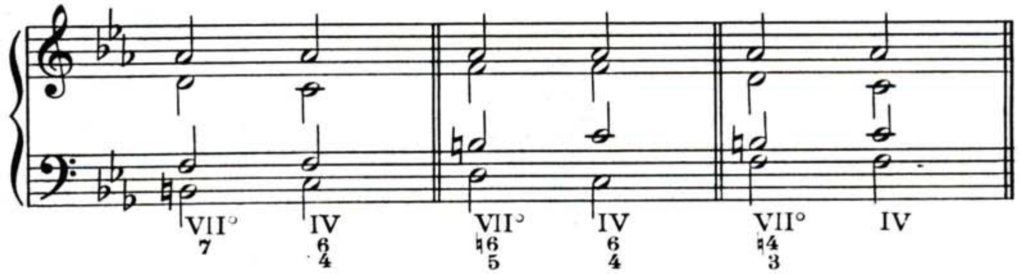
The leading seventh may also resolve to the sub-dominant chord in which case the seventh is retained as common to both chords.



The diminished seventh chord is almost always found on the leading tone in the minor. It can only be used in the major by a chromatic alteration of the leading seventh note.

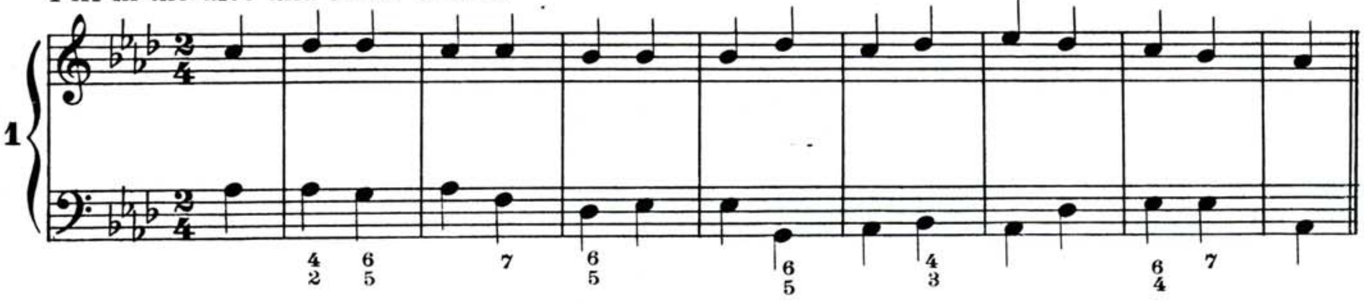


The diminished seventh in the minor may also resolve to the subdominant as the leading seventh in the major.



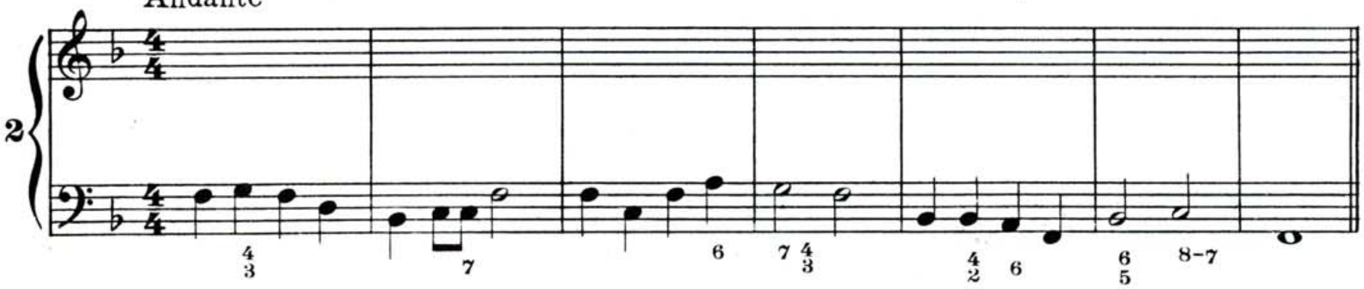
WRITING LESSON

Fill in the alto and tenor voices.

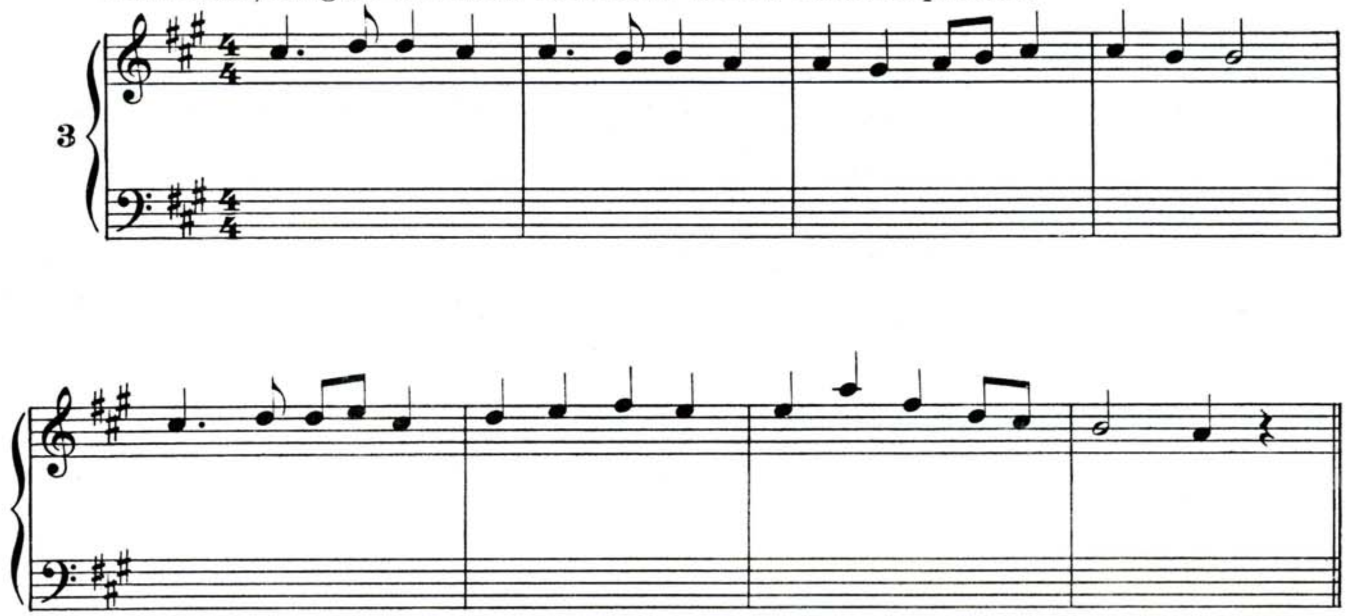


Fill in soprano, alto and tenor.

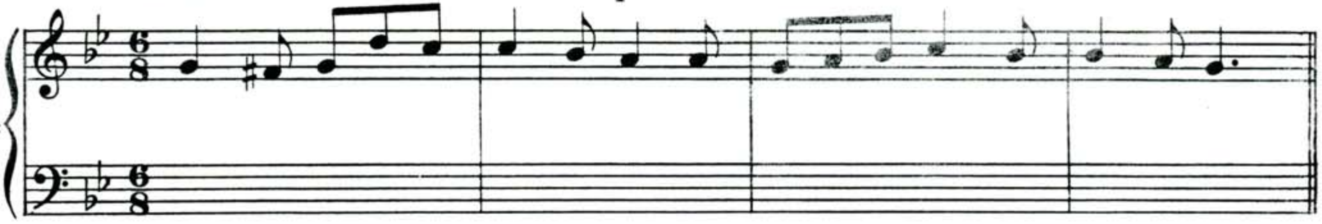
"Elijah" - MENDELSSOHN



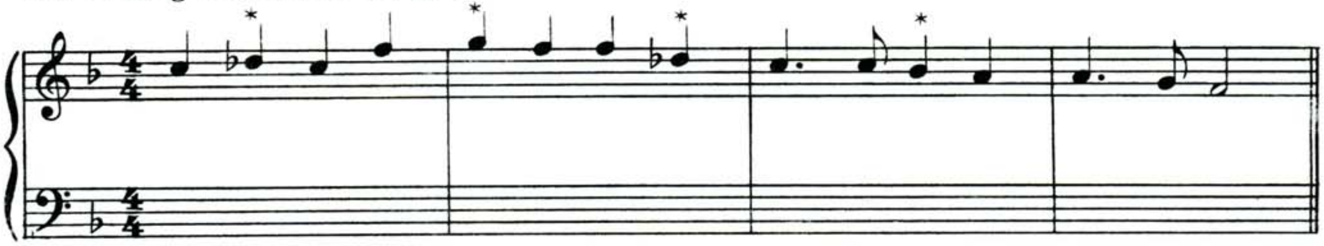
Harmonize, using all inversions of seventh chords wherever possible



Use inversions of seventh chords wherever possible.

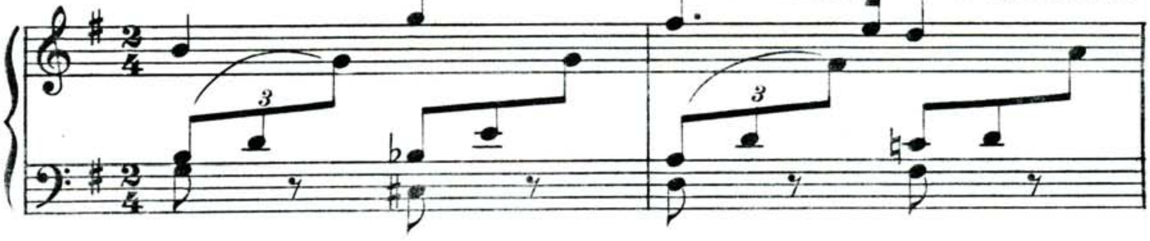
4


Use leading seventh chords at *.

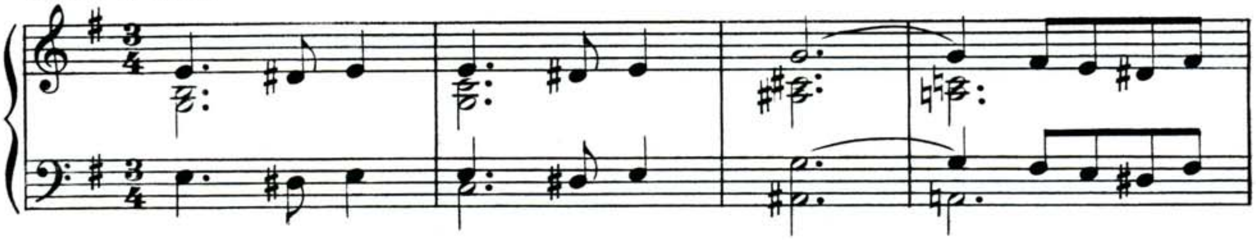
5


Label chords beneath score.

SCHUMANN

6

etc.

Label chords.

7


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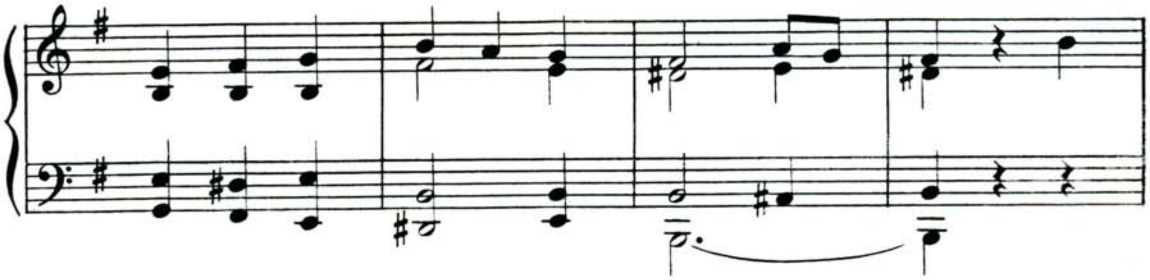
etc.

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MODERN HARMONY EXAMINATION No. 8

Covering Lessons 31-34

Name. . . . .

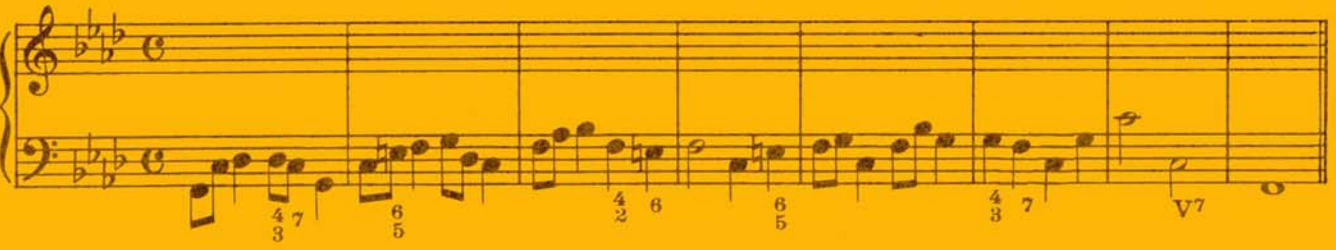
St. or Box . . . .

City . . . . State . . . .

Fill in the above information. Send the completed examination to the U. S. School of Music, Port Washington, N. Y. This exam will be corrected and returned to you.

1

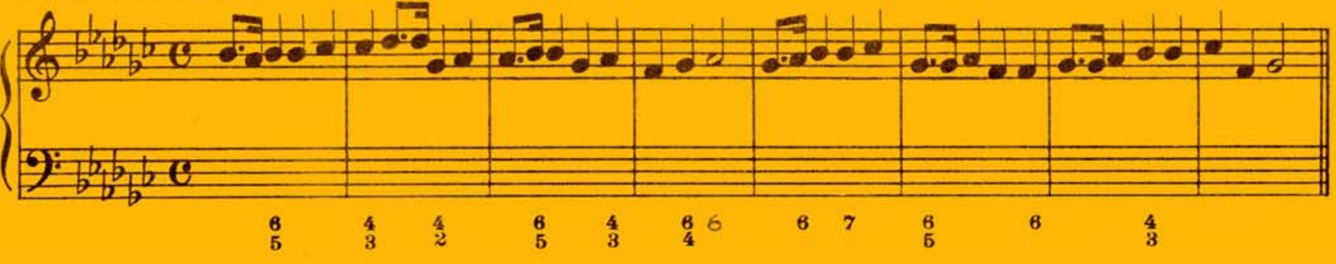
2



3

Harmonize using seventh chords or inversion of seventh chords wherever indicated.

4



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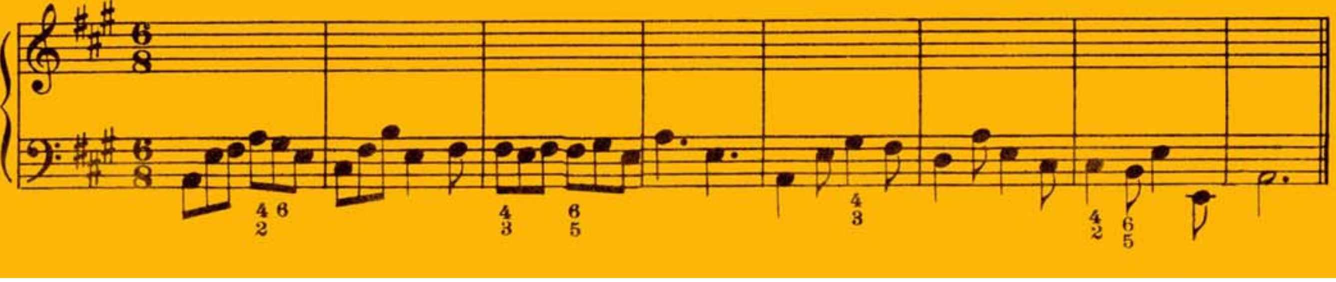
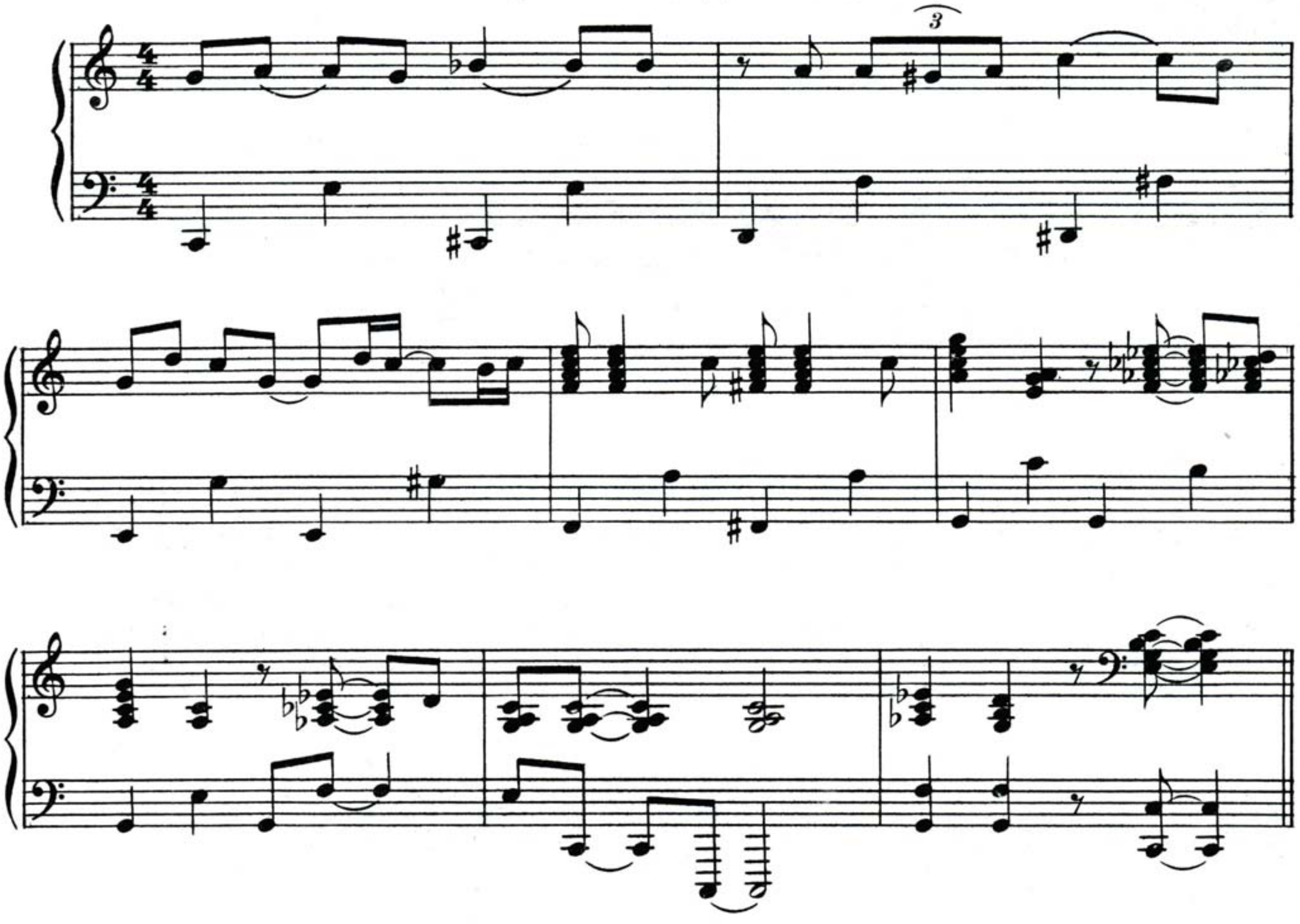


THE MODERN VERSION OF SYNCOPATION

Syncopation alone in a piece does not mean that it is in the jazz or swing idiom. It is a combination of varied syncopated rhythms that make jazz. The basic rhythms, some of which you had previously, are not enough to give real punch to jazz. With the combination of two hands on keyboard instruments, or several instruments in a jazz band, the true essence of popular rhythms makes itself known.

Play the following illustrations many times. Notice how the combination of syncopated rhythms moving against a steady beat adds to the jazz feeling. Count each measure carefully. Be sure to bring the notes together where the curved line indicates and fit the other notes in between each other as the curved line shows. Eventually, memorize these rhythms. Remember, there is no limit to the rhythmic possibilities and we only give you a few basic combinations from which you can develop your own jazz style.



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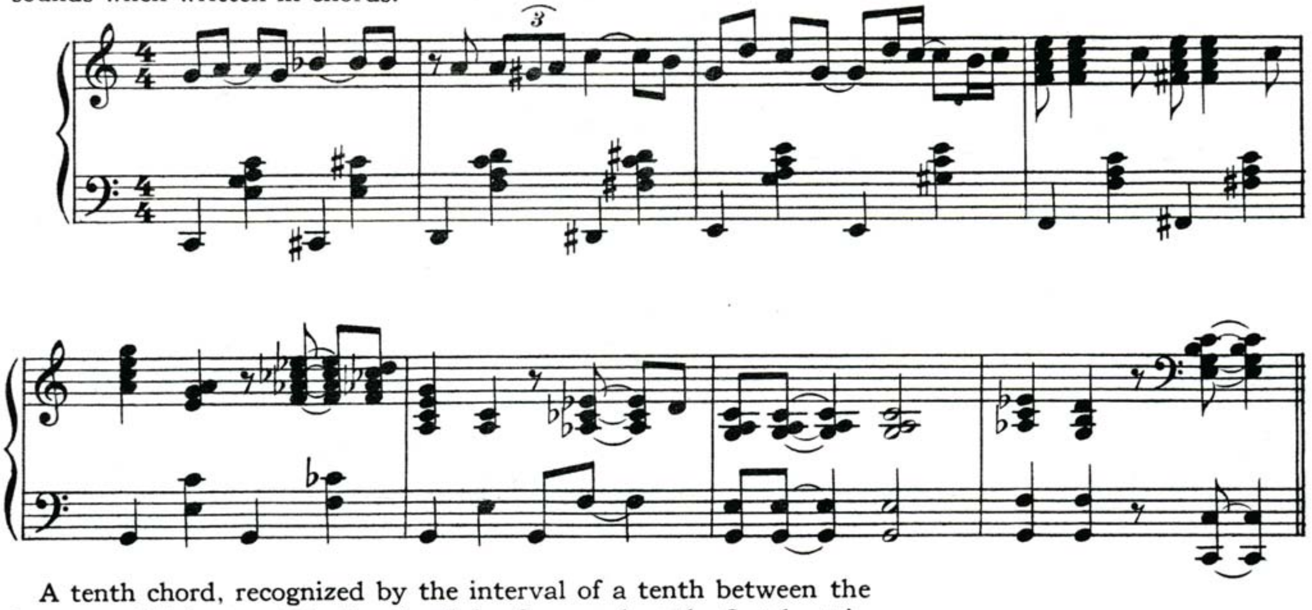
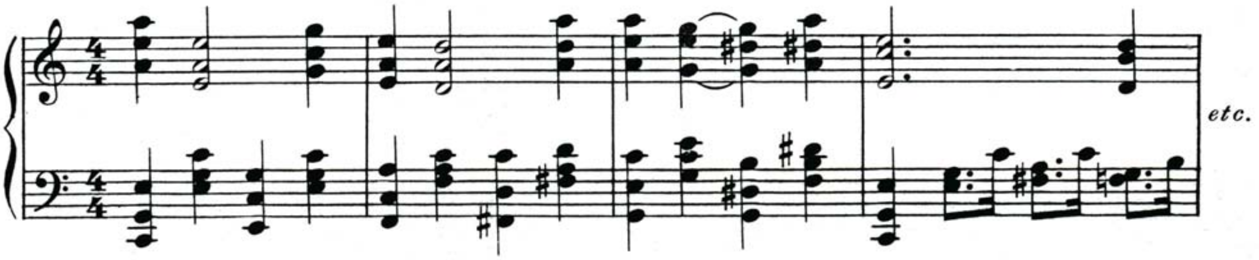
The basses in the previous example were written as single notes to allow you to concentrate on the rhythms. Now let's see how the bass sounds when written in chords.

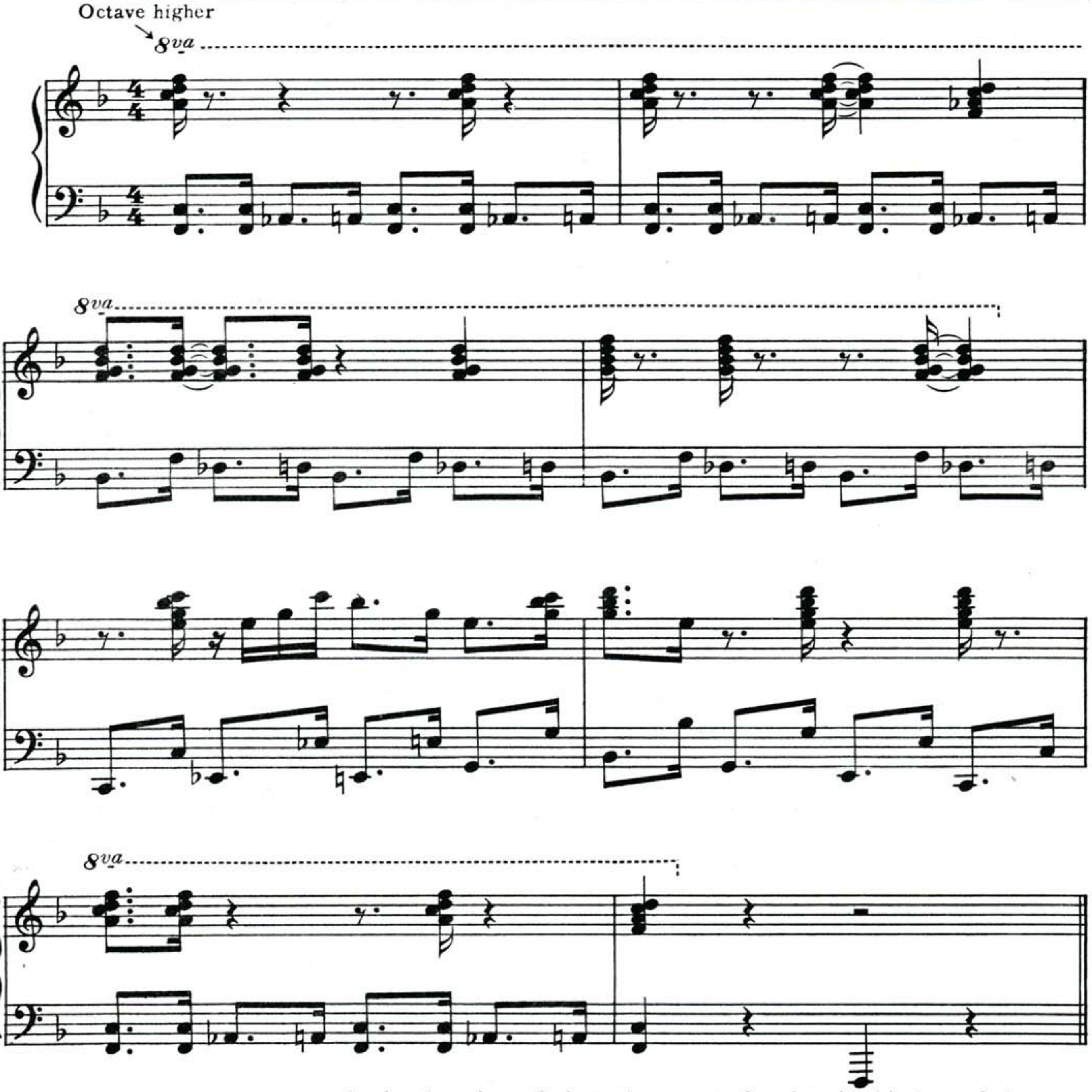


A tenth chord, recognized by the interval of a tenth between the lowest and highest note in the chord, is often used on the first beat in the bass harmony. It is rolled or played one note at a time, in rapid succession, from the bottom to the top. The melody note in the right hand is played exactly with the top note of the rolled tenth chord. This effect is found mostly in the foxtrot and ballad styles.



The faster jazz demands a solid down beat chord on the first and third beat in the measures except in the unusual or Latin rhythms where the main accent is misplaced.

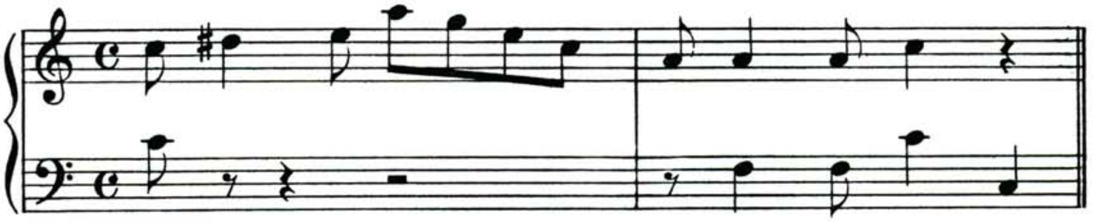
The jitterbug or boogie-woogie rhythms are based on the steady dotted eighth and sixteenth rhythms in the bass with a syncopated complementary melody or chord structure in the treble. Often the bass is played one octave lower than the normal bass register, and the treble likewise one octave higher.

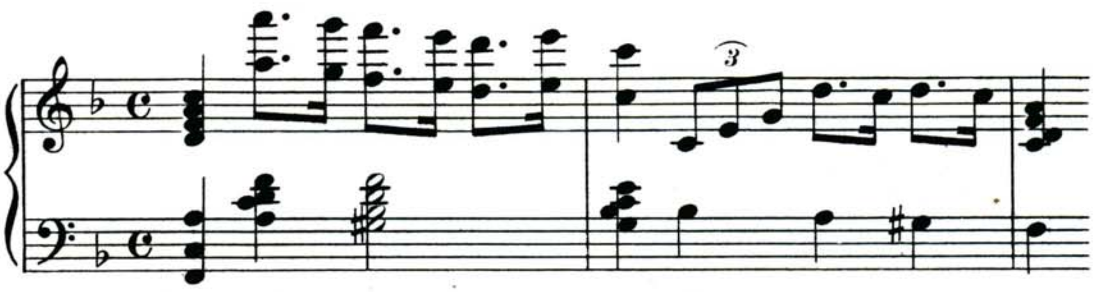


Again, there is no limit to the extent of variety in this type of playing and after a "jam session" really gets going and everyone is improvising, practically anything can happen and usually does.

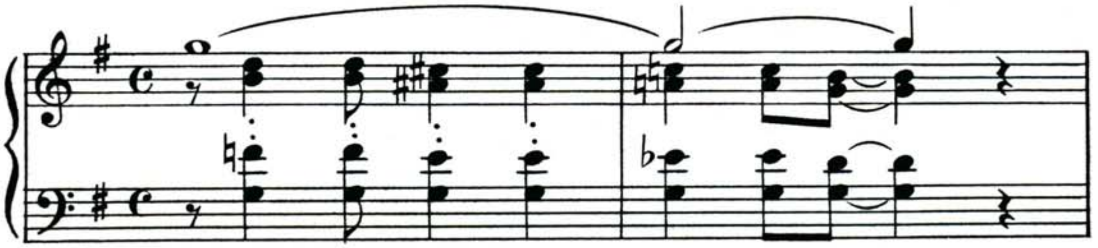
When a line or phrase of popular music has finished and a note is holding, taking a breath in the movement of the theme, a "fill in" is used to cover up or fill in the rhythmic gap. Remember that jazz is

fundamentally built on rhythm and a break in the movement would slow up or disorganize the constant motion of the popular idiom. While the melody note holds, extra notes are added for the amount of beats equal to the sustained melody note. The fill in notes can be almost anything the performer chooses but there is a pattern which you can learn by analysing fill in passages. Usually, the notes are part of the chord on which the melody is built at that particular measure or a portion of the scale relative to the harmonic background present at the moment of the fill in. Here are some fill in examples. Study others from popular music aside from the Course.





etc.



Can You Jazz Jazz?

There are some who play jazz naturally, whether they play by ear or have studied an instrument and read music fairly well. Others just don't seem to get the feel of it. They say, "How do you make it jazzy?" The answer invariably is, "I don't know, I just play the way I feel." But this is no help to the one who can't beat it out or get the swing.

Therefore, the popular conclusion is, either you have it or you don't. Although we agree that those who have it can reach a greater degree of efficiency than those who don't have it, we would like to

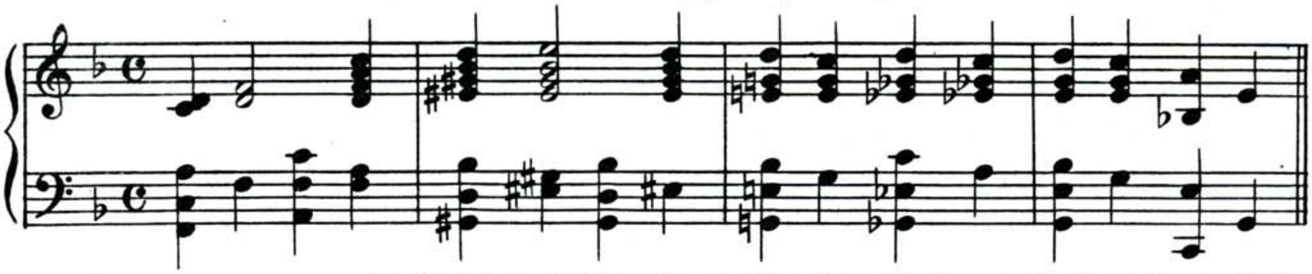
have you try a little trick that will help you to feel the true jazz rhythm. This can be applied to all popular sheet music. In fact, you may have some on the piano right now that you have tried to play and count exactly as it appears in the notation. It just didn't sound right, at least, not as you heard it when played by a jazz professional.

Go back and play the first illustration of eight measures at the beginning of this lesson. Play it in exact rhythm, counting and playing the notes precisely on the beat as indicated in the music.

Now play it again, but this time, make the "*and*" of the *first* and *third* beats ***a little late***. In other words, play the syncopated "and" beat late and ***just before*** the second and fourth beat. This may seem strange at first, but if you do exactly as described above, you will feel the swing rhythm come into the music.

Now then, if you play the "and" of the first and third beats too late, the rhythm becomes a dotted eighth and sixteenth note. This would not have the effect you wish to produce. You must find a happy medium.

Suppose there are no eighth notes in the melody making no "ands" to work with? Suppose there are all quarter notes? Try playing the second and fourth beats in the right hand slightly *sooner* than the left hand notes which should come exactly on the beat. Here is an illustration to test this type of jazz rhythm.



In jitterbug and boogie-woogie where the bass is built on the dotted eighth and sixteenth rhythm, keep the bass steady and on the beat and play the same tricks with the right hand rhythms. It will not fail if you keep at it until you have mastered it. From then on, jazz will hold no problems for you nor will it seemingly represent a magic touch that only the chosen few can perform.

In a later lesson, you will learn how to add notes to those given in a jazz score. This is the final touch to the popular style of playing. Go to it, and aside from enjoying yourself, constantly search for new "off the beat" rhythmic combinations.

In place of a writing lesson, compose a popular piece in any key; in **A A B A** form, eight measures to each section, meaning, eight measures to **A**, eight measures repeated for second **A**, eight measures to **B** and eight measures to final **A**; with or without words and using various rhythms you have studied.

Do not send this piece to the School. Add it to your file of compositions. Later we will ask you to write a popular piece to be sent in for correction.

NON-HARMONIC DISSONANCES

You remember that a dissonance is the classification for chords containing notes harmonically related to the chord but giving the chord a quality which makes it necessary to be resolved. Now let's identify a non-harmonic dissonance:

WHEN A TONE, WHICH IS FOREIGN OR UNRELATED, IS INTRODUCED TO A CHORD FORMATION, THE CHORD BECOMES A NON-HARMONIC DISSONANCE.

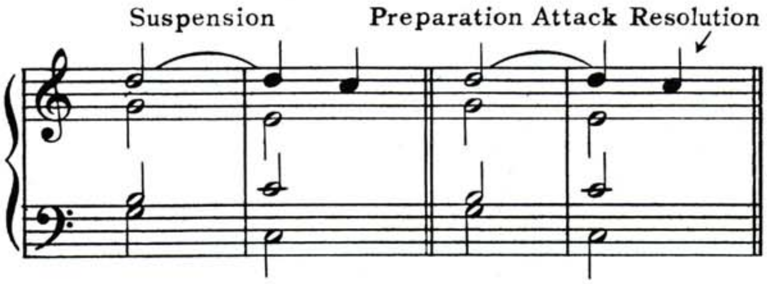
General classifications for these chords are:

1. Suspensions
2. Auxiliary Tones
3. Passing Tones
4. Appoggiaturas (pronounced a-podge-ia-tour-a)
5. Anticipation
6. Organ Point

There are more but they would involve the study of counterpoint which is more advanced than harmony and composition. Suppose we analyse these five general classifications, one at a time.

SUSPENSIONS

WHEN A TONE OF ONE CHORD IS HELD OVER TO A FOLLOWING CHORD OF WHICH IT IS NOT A HARMONIC PART AND THE TONE IS NOT ALLOWED TO PROGRESS UNTIL A BEAT OR HALF-BEAT LATER THAN THE SECOND CHORD, IT IS CALLED A SUSPENSION.



There are three steps forming a suspension:

1. Preparation
2. Attack
3. Resolution

The preparation may occur on any beat; the attack usually occurs on a strong beat. The suspended tone may be any voice: fundamental, 3rd, 5th or 7th. *It resolves degree-wise (usually down) to a consonant position on a harmonic tone of the second chord.*

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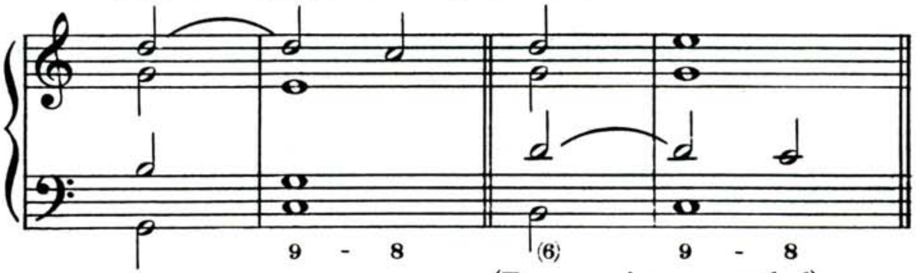
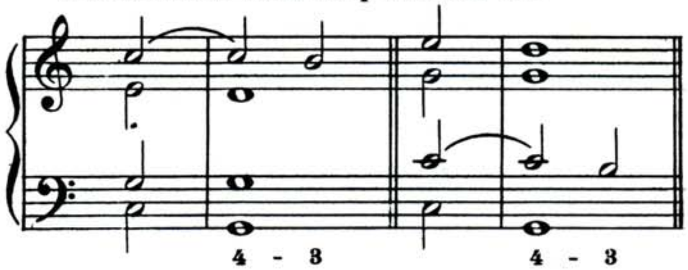
The symbolic bass figuration for suspensions follow:

Fundamental of chord suspended is 9-8

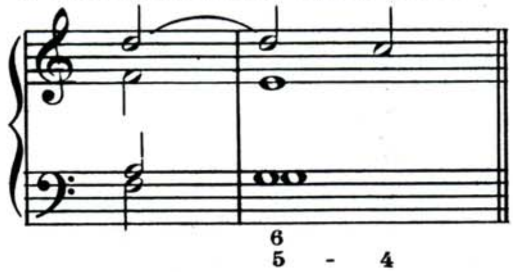


(Tenor voice suspended)

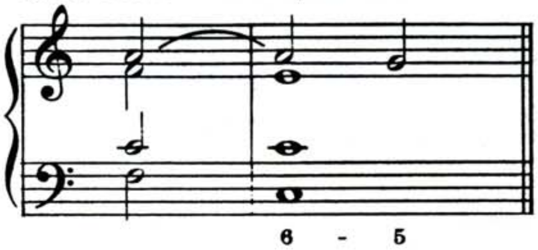
Third above bass suspended is 4-3



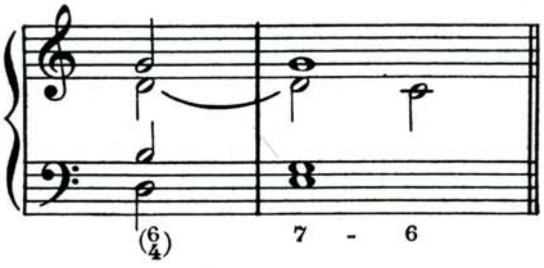
Fourth above bass suspended is 5-4



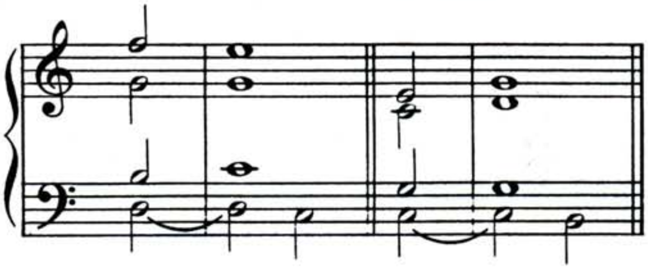
Fifth above bass suspended is 6-5



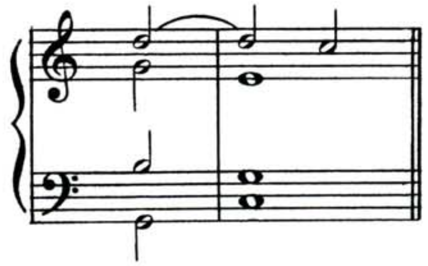
Sixth above bass suspended is 7-6



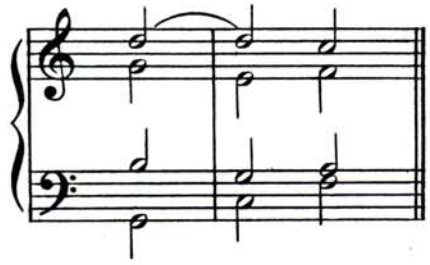
A suspension can also appear in the bass.



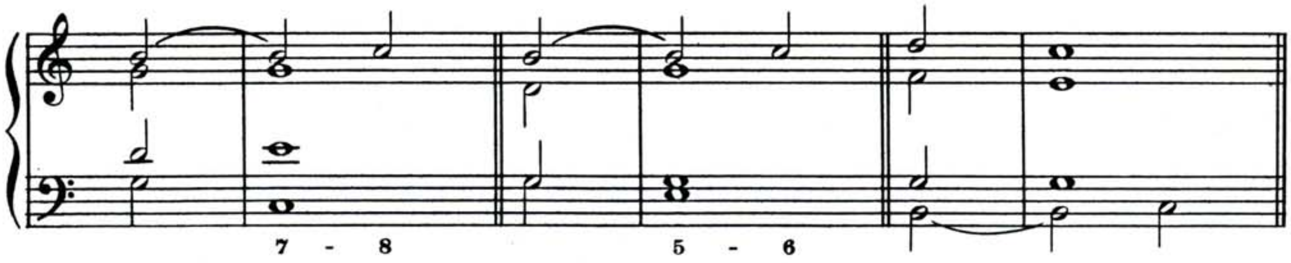
A chord may change at the same time with the resolution of the suspension provided that the tone of the resolution is a member of the new chord.



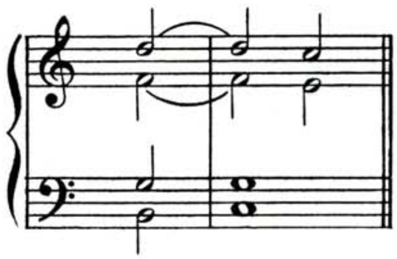
may resolve



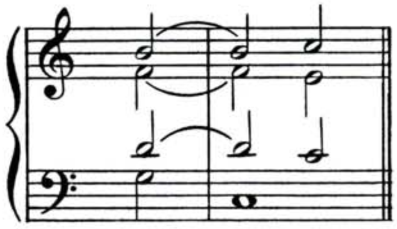
You have seen, so far, all the possibilities of the suspension when it resolves downward. Let's examine a few examples when it resolves upward. This is called a **RETARDATION**.



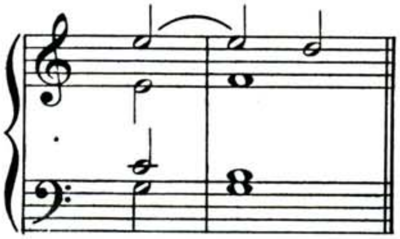
Here is a double suspension:



And a triple suspension:

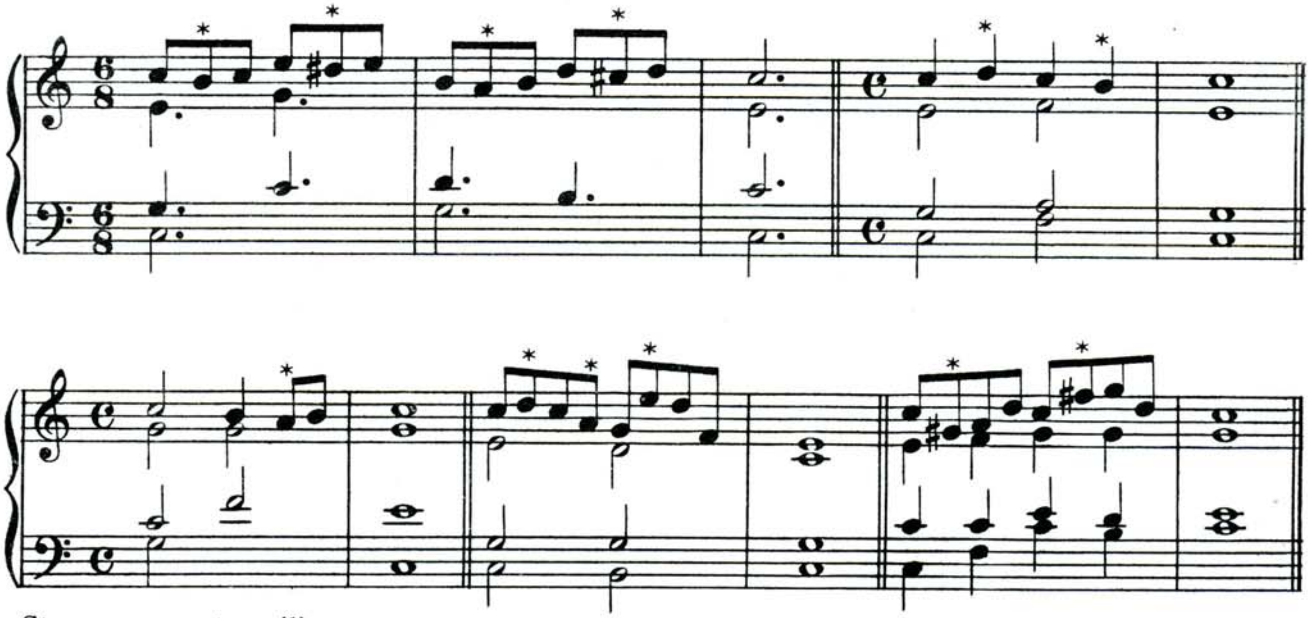


You can also have a suspension over a dominant seventh:



AUXILIARY TONES

AN AUXILIARY TONE IS A NON-HARMONIC TONE OCCURING ONE DEGREE ABOVE OR BELOW A HARMONIC TONE. IT CAN BE A HALF OR WHOLE STEP AWAY FROM THE HARMONIC TONE TO WHICH IT *MUST* PROGRESS.



Stars represent auxiliary tones

The New Twist

Non-harmonic dissonances are just another way to say the same thing musically. Manufacturers are always trying to find a new name or different appearance to an old product to give it selling power. Comedians are forever giving a new twist to an old gag. Actually, composers are constantly trying to say the same thing in tone but giving the music a different approach or way of presentation. Non-harmonic dissonances can be of aid in this necessary quality of variety.

For your Writing Lesson, write several examples of four measures for each non-harmonic dissonance you have studied. Do not send these into the School.

MODERN HARMONY EXAMINATION No.9

Covering Lessons 35-36

Name . . . .

St. or Box . . . .

City . . . . State . . . .

Fill in the above information. Send the completed examination to the U.S. School of Music, Port Washington, N. Y.
This exam will be corrected and returned to you.

Write one fill-in of 2 measures in $\frac{4}{4}$ time.

Use your own Key and Time Signatures.
Write three original Jazz Rhythms, each 2 measures long, both treble and bass.

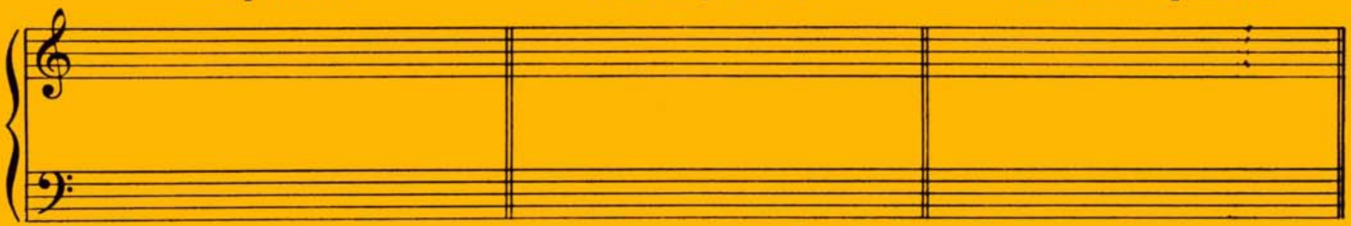
1

2

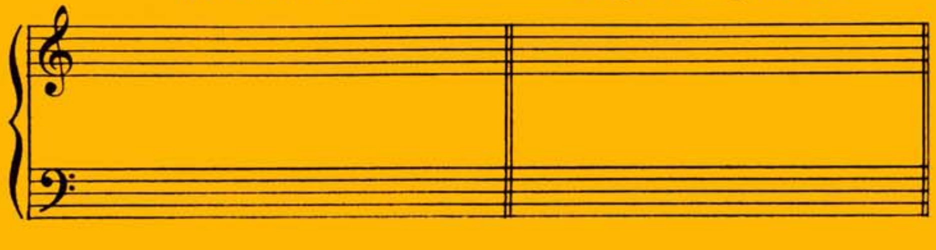
3

Write one example of each of the following.

Suspension | Auxiliary Tone | Double Suspension



Retardation | Triple Suspension



HOME STUDY COURSE

MODERN HARMONY

Lessons 37 to 48

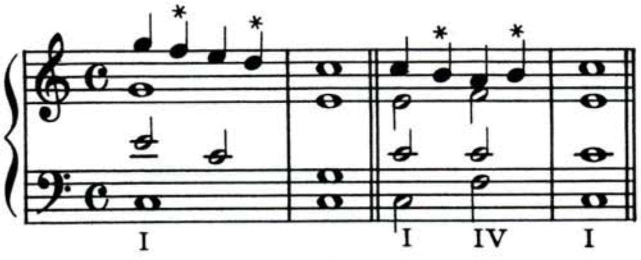
Reg. U. S. Pat. Off.

U. S. SCHOOL OF MUSIC
NEW YORK

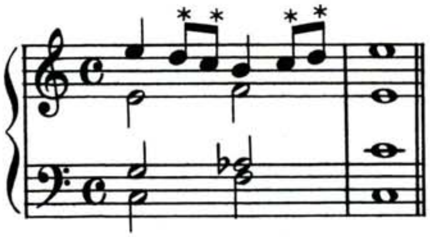
PASSING TONES

PASSING TONES ARE NON-HARMONIC TONES WHICH PROGRESS *DEGREE-WISE* FROM A HARMONIC TONE OF A CHORD TO A HARMONIC TONE OF THE SAME OR ANOTHER CHORD.

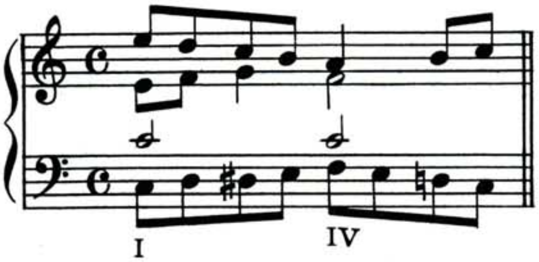
Asterisk (*) identifies passing tones.



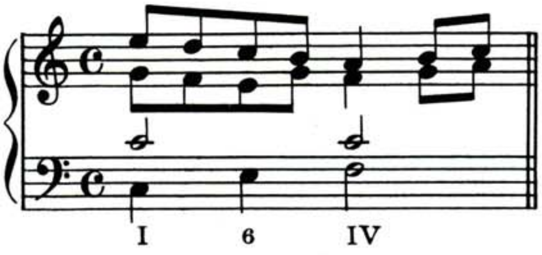
A passing tone may be followed by another passing tone, instead of a harmonic tone, provided the melody proceeds *in the same direction* until a harmonic tone is reached.



Passing tones may occur in two voices at the same time in either contrary or parallel motion.



or



Passing tones may be approached by a skip. Here the tone before the skip must be a harmonic tone. Also, in the upward skip, the passing tone is one degree above the harmonic tone and in the downward skip, it is a chromatic tone, a half step below the harmonic tone.

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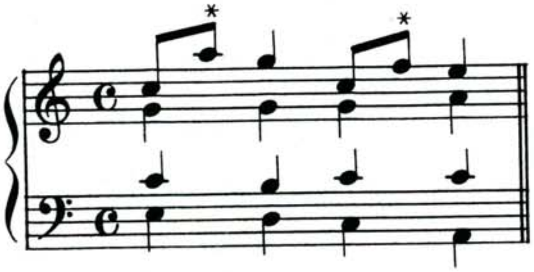
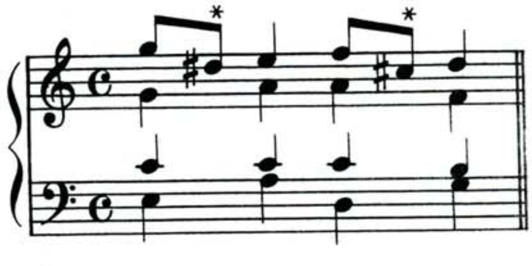
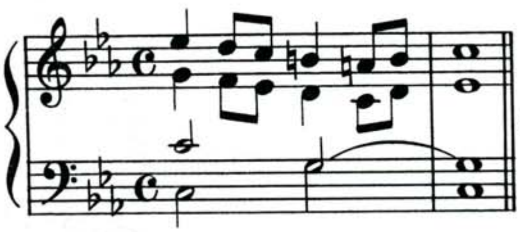
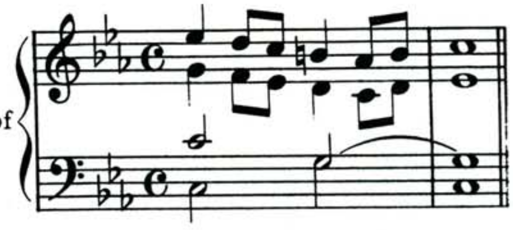




In the minor mode, a passing tone should be written in accordance with the melodic minor scale.

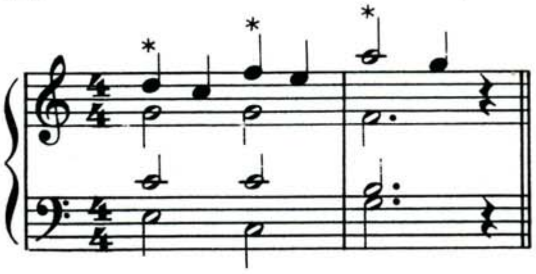


instead of



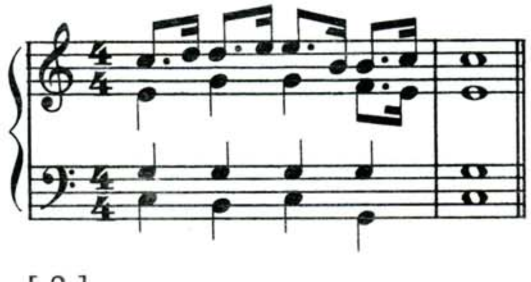
APPOGGIATURAS

AN APPOGGIATURA IS A NON-HARMONIC TONE OCCURRING ON THE ACCENTED PART OF A MEASURE OR BEAT. IT APPEARS TO BE AN UNPREPARED SUSPENSION. IT IS EITHER A DIATONIC HALF STEP ABOVE OR BELOW A HARMONIC TONE.

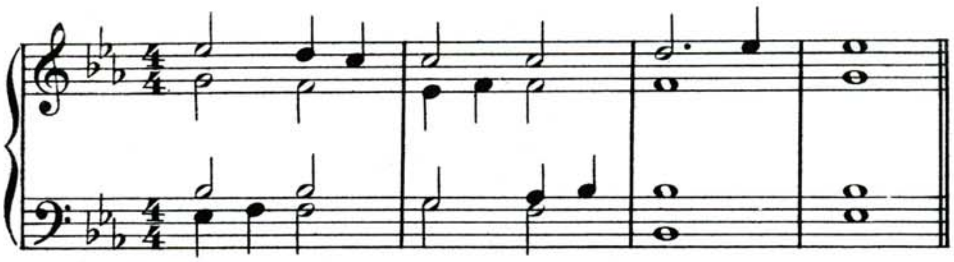


ANTICIPATION

AN ANTICIPATION TAKES PLACE WHEN A TONE OR TONES OF A CHORD PROCEED TO A POSITION IN THE NEXT SUCCEEDING CHORD BEFORE THE REMAINING VOICES PROGRESS.



The tone that is foreign to the chord it follows and part of the chord it precedes has a magnetic pull of anticipation. This occurs on the weak beats or part of the weak beats of a measure. Follow through this anticipation where the action jumps from one voice to another.



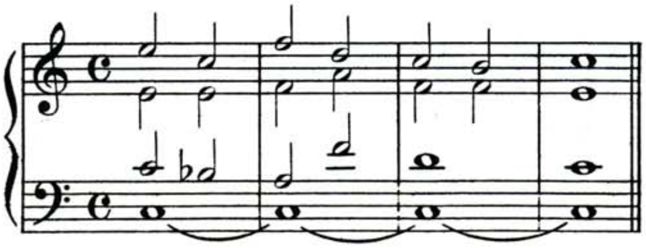
ORGAN POINT

WHEN A PROGRESSION OF CHORDS IS SOUNDED TOGETHER WITH A SUSTAINED TONE TO WHICH THE PROGRESSION HAS NO PARTICULAR HARMONIC RELATION, THE SUSTAINED TONE IS CALLED ORGAN POINT.

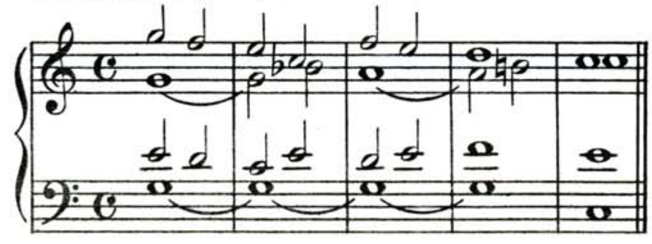
In writing organ point, remember the following features:

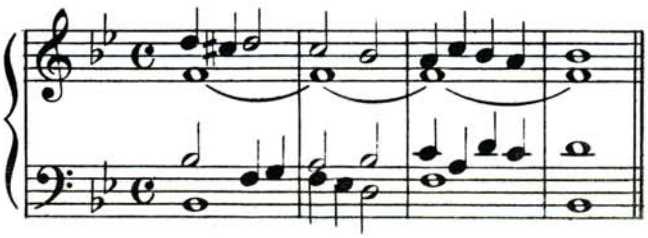
1. Organ point may appear in any voice but it is generally in the bass.
2. The tonic or dominant, or both, are usually employed as an organ point.
3. The first and last chords sounded with an organ point should contain that tone as harmonic or part of the chord.
4. The progressing chords should have a connection among themselves.
5. When organ point appears as the bass, the tenor should be considered as the bass of the progressing chords.

Here is organ point on the tonic:

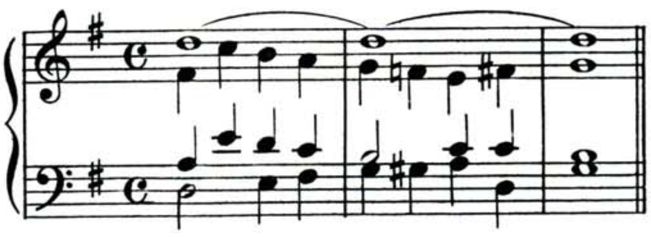


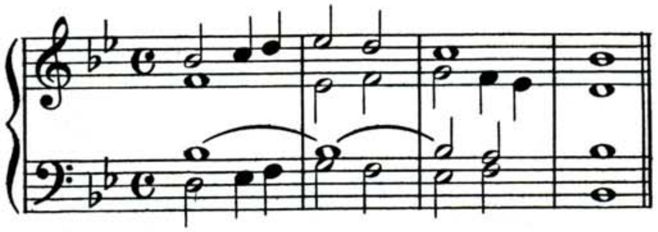
And then organ point on the dominant:



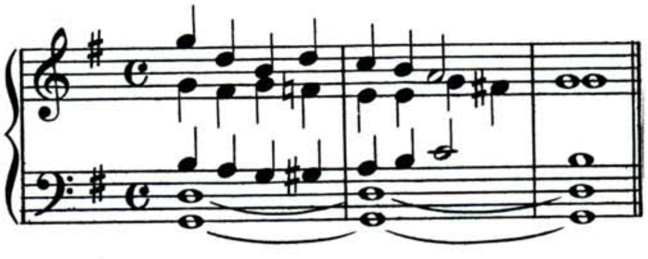


When organ point appears in the upper voices, it is called Inverted Organ Point:

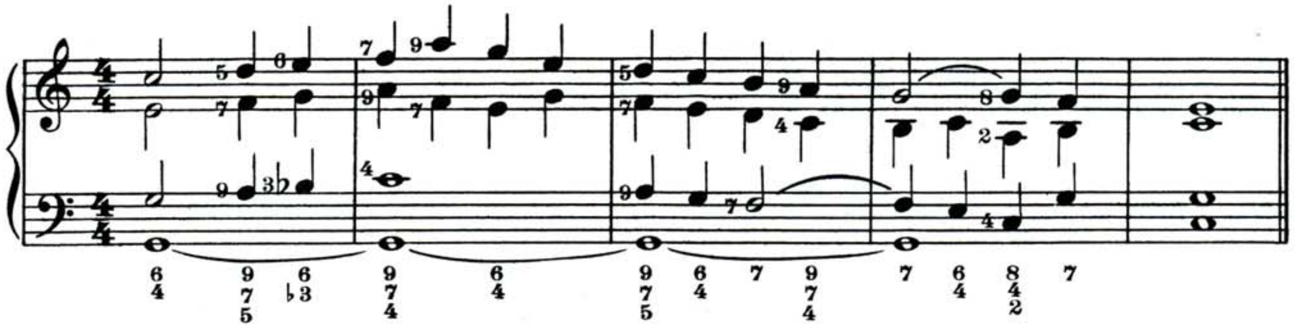




The Tonic and Dominant are often used together. This is called Double Organ Point:



Here are the figured bass symbols for organ point. Study these carefully in order to be able to harmonize organ point exercises.



The Writing Lesson for Lesson 37 is to compose a non-harmonic four part illustration, two measures for each example, for all of the non-harmonic possibilities explained in this lesson. If you feel particularly ambitious, it would be to your advantage to write several examples of each non-harmonic effect in different keys. Write as often and as much as you can and profit by your previous mistakes.

WOODWIND INSTRUMENTS

The woodwinds have an almost human quality that touch the emotions with a greater intensity than any other instrument. Tones are produced by blowing between a mouthpiece and a reed inserted against the mouthpiece.

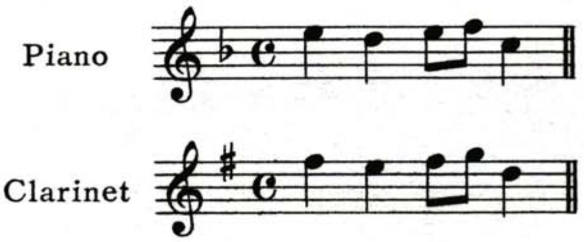
Four important woodwinds are flute, clarinet, oboe and bassoon. The flute is an exception in that it has no reed but is played by blowing across a hole at one end of the instrument. Music for flute and oboe is written in the treble clef; for bassoon in the bass clef.

The clarinet uses the treble clef. However, music for B♭ clarinet, the one most commonly used, must be written one whole tone higher to agree in pitch with the keytone of the composition. At the same time, it will sound "in tune" with the other instruments that are not transposing. An instrument pitched in C, such as the C melody sax, will sound the same pitch as each corresponding note on the piano. If the C melody sax reads C in the music, it plays C, and sounds the same pitch as C on the piano.

But the B♭ clarinet, which is pitched in B♭, will sound one whole tone lower than the corresponding note on the piano. For example, when this clarinet reads and plays middle C from the clarinet score, it sounds as a B♭ on the piano. Likewise, if you want the clarinet to play B♭, you must write it as C on the clarinet part. This change of key from the clarinet part to the piano or corresponding orchestral score, or vice versa, is called *transposition.*

There is also an A clarinet and its music must be written a minor third higher than the piano score.

Here is a piano part in the treble clef; below it is the same part transposed for the B♭ clarinet.



Notice that the key signature for clarinet is different than for the piano. When you transpose you must change the key signature. There is a quick way to make the necessary key change in transposing a piano part to any B♭ instrument: if the piano has one flat in the key signature, the B♭ transposing instrument will have one sharp. Likewise, if the piano signature is in flats, the B♭ instrument will have two flats *less* in its signature. If the piano signature contains sharps, *add* two sharps for the B♭ instrument signature.

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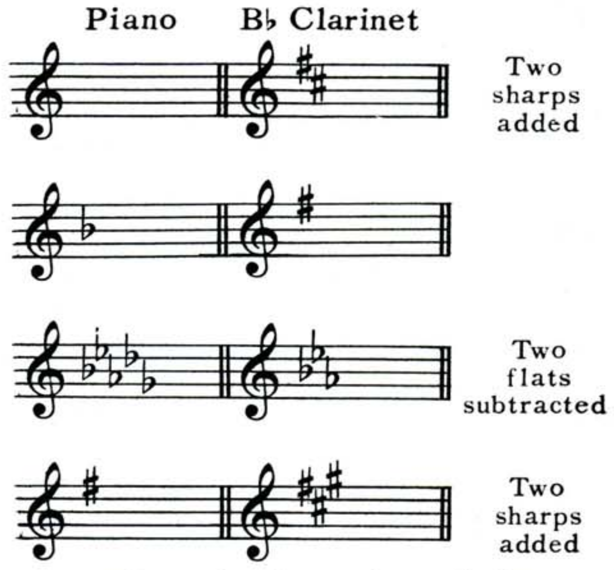
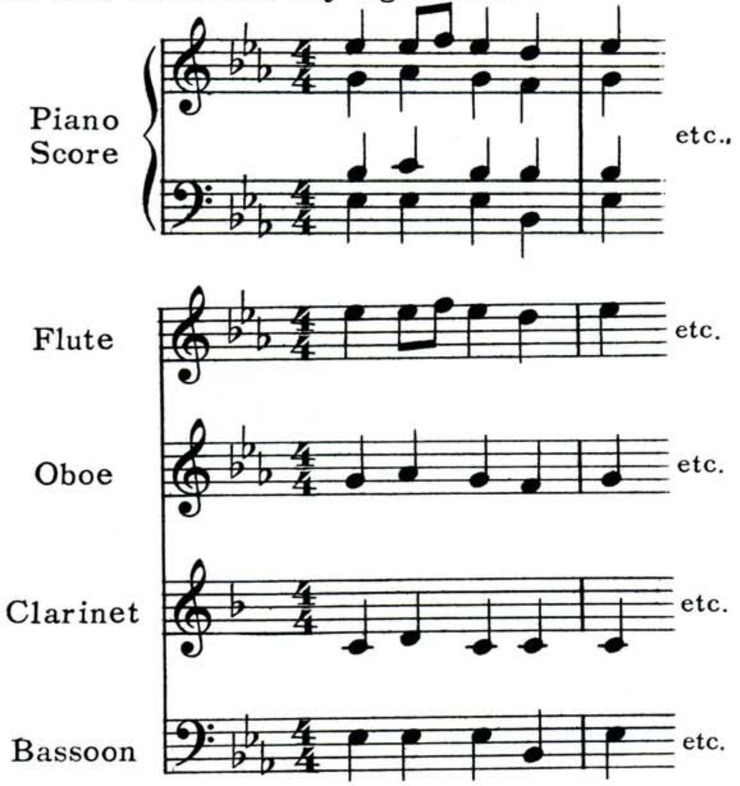
Here are a few examples using the clarinet as the B♭ instrument.



Now let's see what a score written for flute, oboe, clarinet and bassoon would look like. Notice the key signatures.



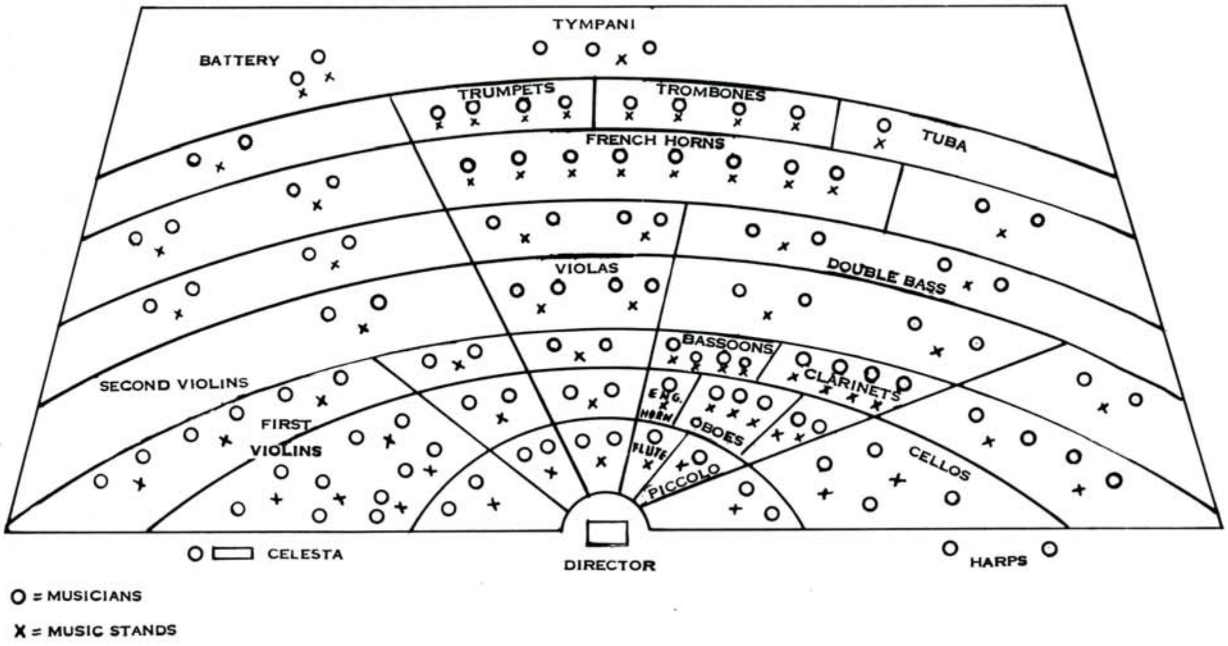
Every instrument has a pitch range comparable with the four voices that you have been learning to write in four-part harmony. At the end of this Course, you will learn the pitch range for the orchestral instruments and how to combine them into an orchestral and band score.

It is best to learn one section at a time. As you study each part theoretically, listen to orchestras or bands and learn to identify each instrument and its tonal quality. Also, observe its main purpose in an ensemble, whether it plays mostly melody or harmonic background, or whatever its usefulness may be.

Other woodwind instruments, not used quite as often in the orchestral score, are fife, piccolo, English horn and bassoon. Unless you study advanced orchestration in detail, you will have no occasion to use these instruments.

Another woodwind instrument, the saxophone, is in a class by itself. It is most often used in dance bands, concert orchestras or military bands. It seldom appears in a symphony orchestra score.

Although the saxophone is made of brass, it is played with a reed and is classified as a woodwind instrument. Except for the C melody sax, it is a transposing instrument built in B♭ soprano, E♭ alto, B♭ tenor, E♭ baritone and B♭ bass. It can be used as a melody instrument or in background effects as you will learn later in combining all the instruments into one unit.



The Philadelphia Symphony Orchestra Seating Arrangement

In some orchestras, there is more than one player for most of the instruments, and many players for each section. For instance, a symphony often has a total of over a hundred men. But the popular or jazz orchestra numbers from 6 or 8 to 14 or 16 men at the most. In this case, some players must play several instruments, changing as the score indicates, according to the arrangement, from one instrument to another. The woodwind performer usually plays saxophone, clarinet and flute. He keeps the instruments resting on a stand beside him and changes from one to the other as he needs them. In writing a jazz score, you must arrange the combination of instruments so that each part is adequately covered. For instance, do not write for clarinet and flute at the same time if there is only one player to cover both instruments. Most composers and arrangers of popular music know exactly the number and type of instruments in the band they are writing for. Later lessons will show you what combinations sound best when you are not writing for any particular band.

Hearing Without Playing

It is important now that you develop the ability to read music and hear how it sounds without playing it. How? This is a matter of concentration and training. Take a melody that you know, look at the music, mentally sing the tune as you follow each note in the correct rhythm and you will find that without actually uttering a sound, you will mentally hear the tune. If this is difficult, sing it aloud first.

It is the same principle as looking at a picture of ocean waves breaking on a rocky shore and, though you are standing in a silent room with the picture, you mentally hear the sound of the waves on the rocks.

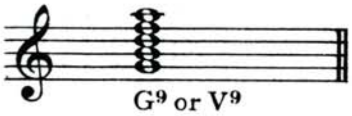
As you develop this silent music reading ability, you will not only begin to hear the melody, but the harmonic value of the chord structure will become audible to your thinking ear. As you scan a chord progression, your eye and mental ear will dictate its value without your having to play it.

Later, after you have mastered reading familiar music, try a strange score and see how the same technic holds true. The ultimate aim in this practice is to compose without a piano. Write first, then hear it after you have finished. Patience and perseverance will reward you with this valuable accomplishment.

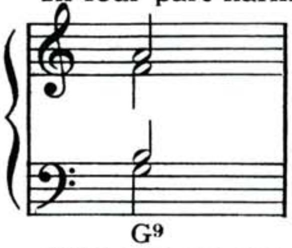
For a Writing Lesson this week, compose an eight measure chord progression in open score for flute, oboe, clarinet and bassoon. Also, practice reading music, anything you wish, and hearing it without playing. To test results, read one measure, *think* how it might sound, and then play it to see how close you came. Do not stop this practice at the end of this lesson. *Keep it up until you have mastered the technic.*

NINTH CHORDS

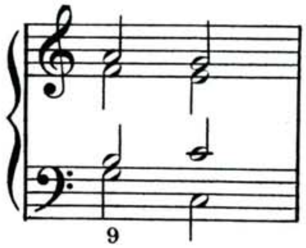
When the interval of a 3rd is added to a seventh chord, the resulting chord is a ninth chord.



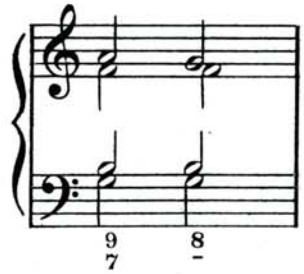
In four part harmony, the 5th of the chord is omitted.



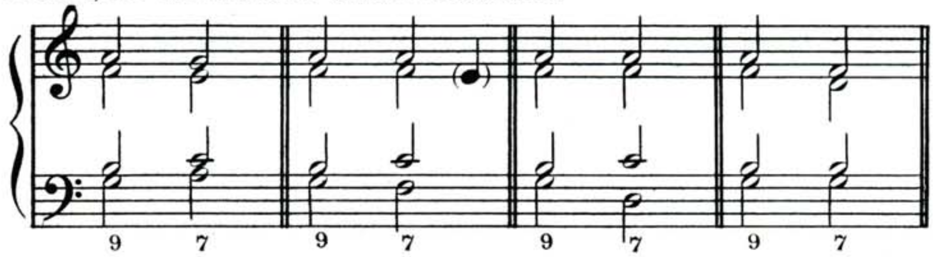
THE ROOT OF A NINTH CHORD MAY RESOLVE DOWN A 5th TO A TRIAD. THE 3rd OF THE CHORD MOVES UP AND THE OTHER VOICES MOVE DOWN.



A NINTH CHORD CAN BE FOLLOWED BY A SEVENTH CHORD ON THE SAME BASS TONE. THE 9th RESOLVES DOWN.



IN ALL OTHER PROGRESSIONS OF THE ROOT OF A NINTH CHORD THE 3rd MOVES UP, OR IF IT IS A COMMON TONE, IT REMAINS STATIONARY.



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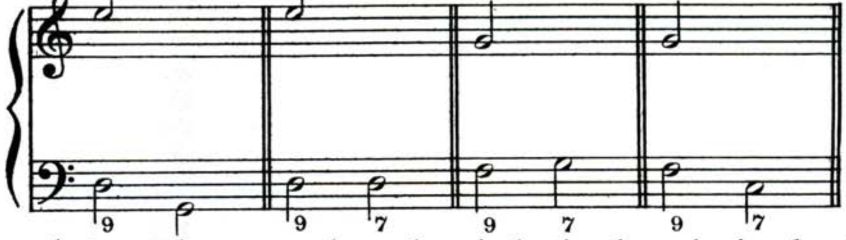
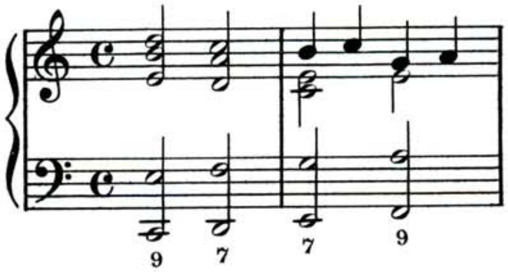
Ninth chords are seldom inverted in four part harmony. The 9th is usually in the soprano voice. The most used ninth chords are the V^9 and II^9 in major and the V^9 and IV^9 in minor.

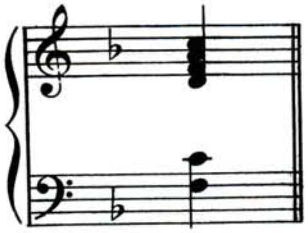
Fill in the soprano, alto and tenor of the following chords:



Now that you have seen how the ninth chord works in chord progression, let's see how it behaves when jazz takes over. As you know, almost anything can happen to a chord progression in the jazz idiom. Here is the ninth chord with the 5th omitted as in four part harmony.

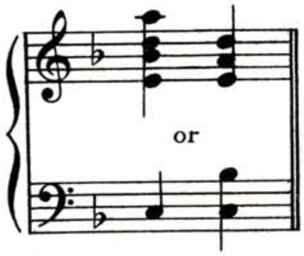


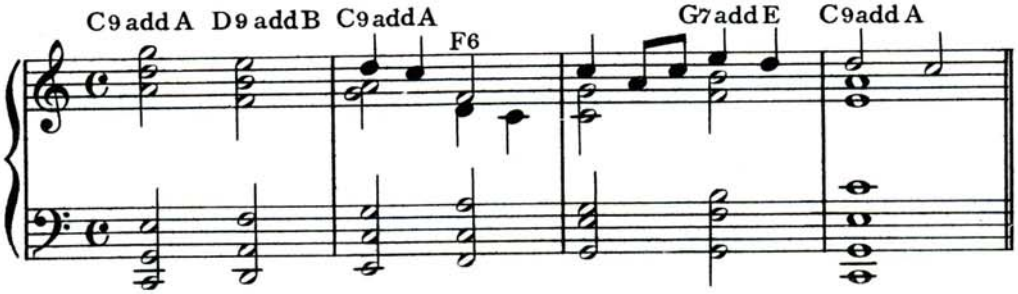
For a richer jazz harmony, sometimes called "close harmony", add the 6th of the chord to a triad.



The 6th degree is most common in modern arrangements. In fact, to the ear of the jazz composer the 6th degree is ever present in triads.

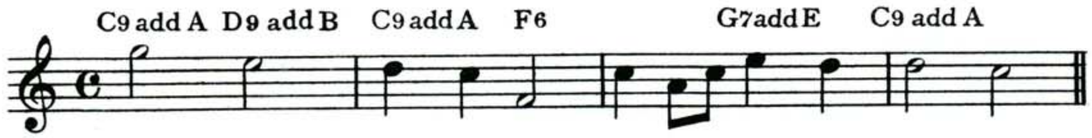
Another way to produce a full effect of harmonic quality is to add the 6th degree to the ninth chord.





Notice the direct simplicity of the symbols. The first chord in the example is actually a C major chord with an added 6th and added 9th.

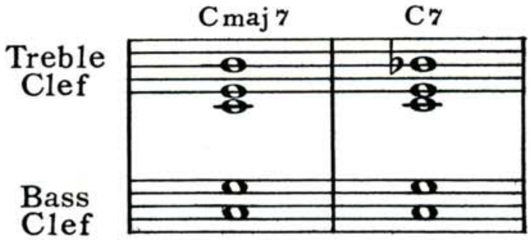
A modern writer uses a lead sheet instead of the full score as seen above. Here is the same example in a lead sheet form. The performer will play chords as marked in symbols. Notice that the melody is still written out.



This is the shorthand version of the modern composer.

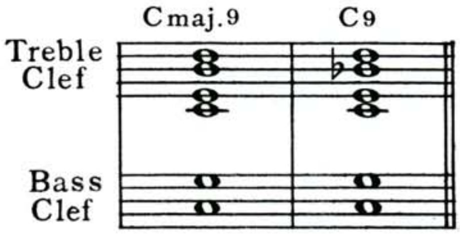
The large chords in the bass are called tenth chords because the distance from the bottom to the top notes is ten degrees. The tenth is actually an inverted third, major or minor, depending on the key signature. If you have a large hand, try playing these notes in the bass as chords, but if you cannot reach a tenth, roll the chord from the bottom to the top, playing each note individually. Play the chord in the right hand with the top note of the bass roll.

When using the symbol of the seventh chord in jazz writing, it is understood that the symbol C^7 means a V^7 with the seventh degree flatted. You have symbolized this chord with I^7; on the lead sheet of jazz, it is C major 7. Here they are:



It is interesting to note that the composer of modern music calculates each chord as a unit whereas the classic writer feels each chord within a tonality.

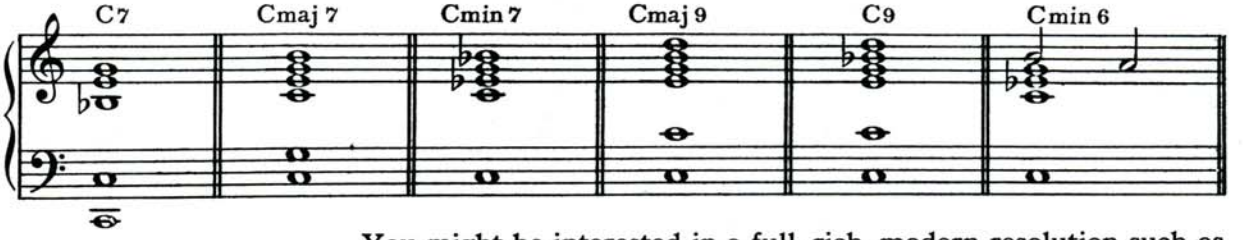
The ninth chord automatically accepts the presence of the flatted 7th degree. Here are the same two chords including the 9th degree.



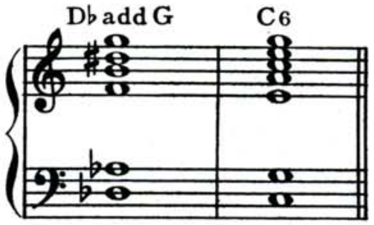
The controlling element of major and minor in classic form is the third degree. In modern writing, *when more than a triad is included in the chord,* the major 9 chord is identified *major* by the I^7 chord included in it.

In other words, when the 7 is attached to a symbol, it is understood that the 7th degree is flatted. When the symbol indicates major 7, the use of the seventh degree within the tonality of the *scale* is understood.

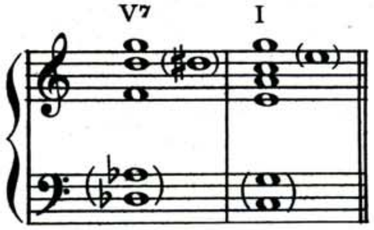
Here is a chart showing the possibilities of the 7th and 9th chords with the modern symbols commonly used on a lead sheet of the jazz score.



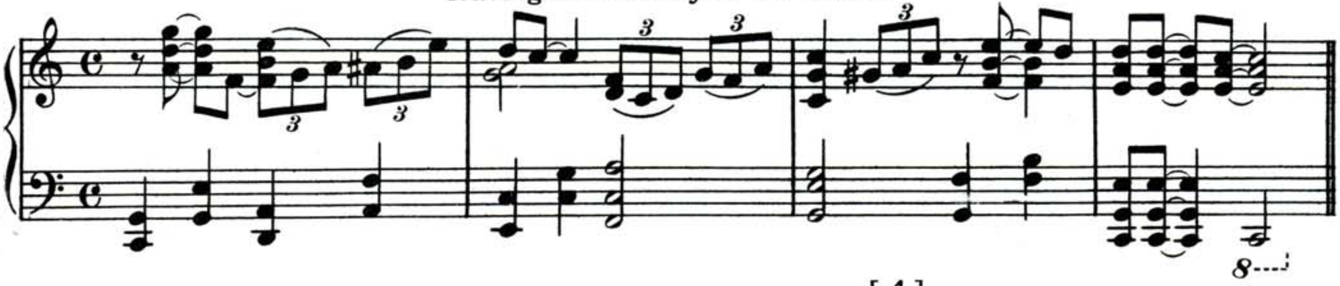
You might be interested in a full, rich, modern resolution such as can be found in a jazz cadence.



The symbols show the identification in the modern idiom. For a classic approach to a definition of this resolution, consider it a descending, authentic cadence with the added chromatic feeling. Here is the same resolution as above isolating the authentic cadence and showing the chromatic feeling in parenthesis.



Notice how jazz goes one step further than non-harmonic tones of the classic form of writing by adding more freely to the basic progression and using more varied and syncopated rhythms, without leaving the tonality of the theme.



Notice how the chords of the treble are broken up into syncopated patterns working against the steady beat in the bass. The triplets are a form of fill-in. As they appear here, they are in a simple form. With repeated hearings of the modern chord progressions, your ideas for fill-ins will become more advanced. Try flavoring them with accidentals.

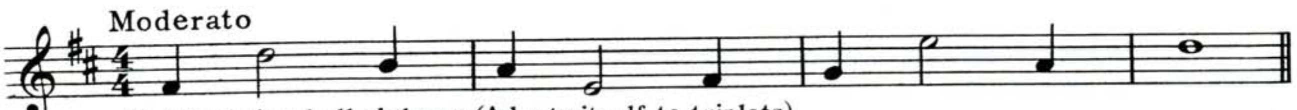
THEME AND VARIATIONS

There are no set rules for variations on a theme. You will get the feel as you constantly write and listen to jazz soloists and bands. The time and place for fill-ins usually occurs on beats of longer time value in the original tune or outline of chords. Fill-ins can be of any rhythmic pattern as long as they do not exceed the total number of beats in the measure.

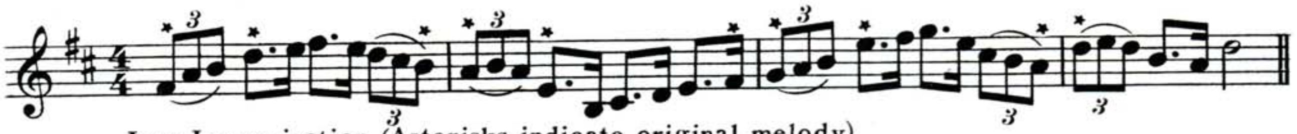
Fill-ins to the jazzman are not something acquired at the dentist's. What is a fill-in? A fill-in is a run of one or two measures of hot countermelody. A riff is a four to eight bar phrase of countermelody with some harmony. A hot lick is a jazz phrase similar to a riff with plenty of syncopation. You will get as many definitions of these somewhat loose terms as there are jazz experts. In no time such expressions grow corny. Actually, the above mentioned expressions mean spontaneous improvisations filling in parts of a melody.

You have listened to swing music and Dixie-land bands. Remember how the chorus is played through once without any embellishments — just straight chorus with the melody and rhythm quite clearly defined. Then, upon the repetition, the chorus grows with an improvisation on the theme. The saxophone weaves in and out harmonically while the trumpet might go off on a trail of its own augmenting the original melody with a flare of harmonic and chord patterns. Having been introduced to the real tune in the first chorus, the listener hears the basic melody with each repetition of the chorus and he delights in the creative melodic designs that skirt in and out of the basic melody. Each instrument of the band has its turn to cut loose and exploit the instrumental and melodic possibilities of a good tune or a harmonic progression.

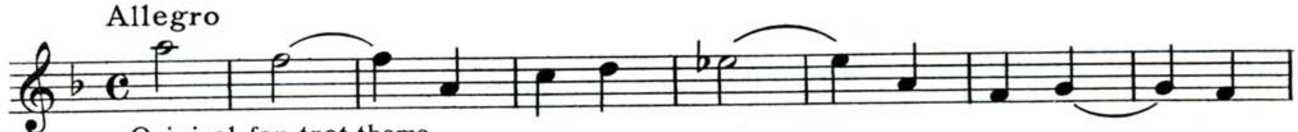
You should know how this is done so that in your composing, you can write a tune that will lend every chance to the performer to improvise according to his temperament and liking. Study the following jazz variations. See how they grow from the notes of the chord and melody. Notice the original melodies, observing how they lend themselves to the improvised patterns. In writing your own arrangements, you might find it easier to work them out on the piano first.

1 

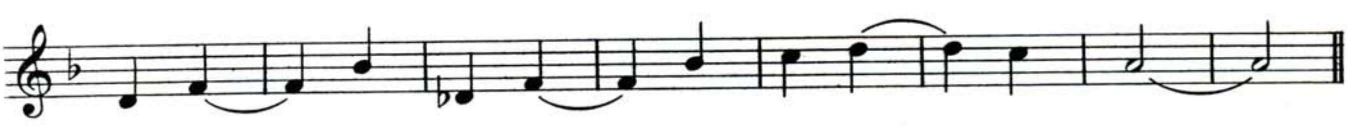
Original slow ballad theme (Adapts itself to triplets)

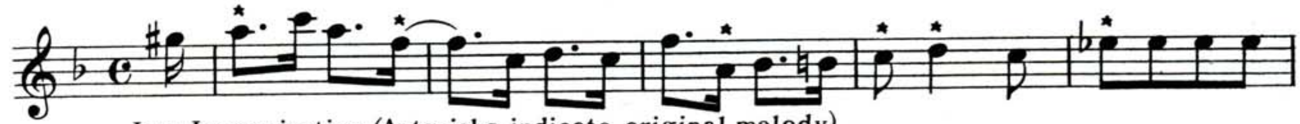
1 

Jazz Improvisation (Asterisks indicate original melody)

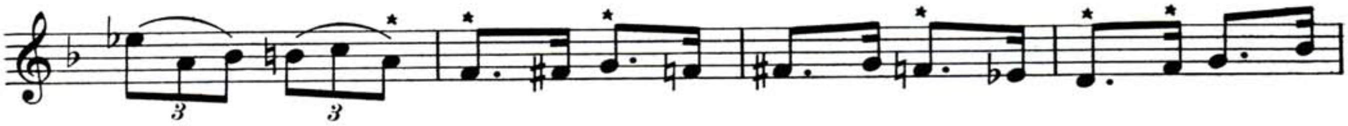
2 

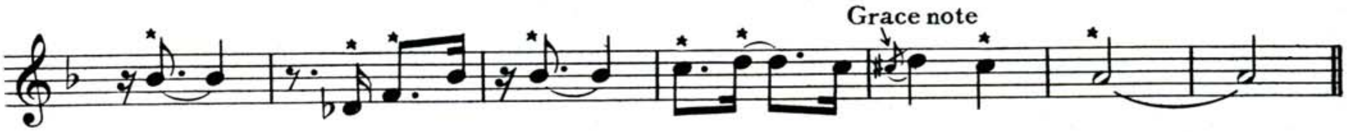
Original fox-trot theme



2 

Jazz Improvisation (Asterisks indicate original melody)



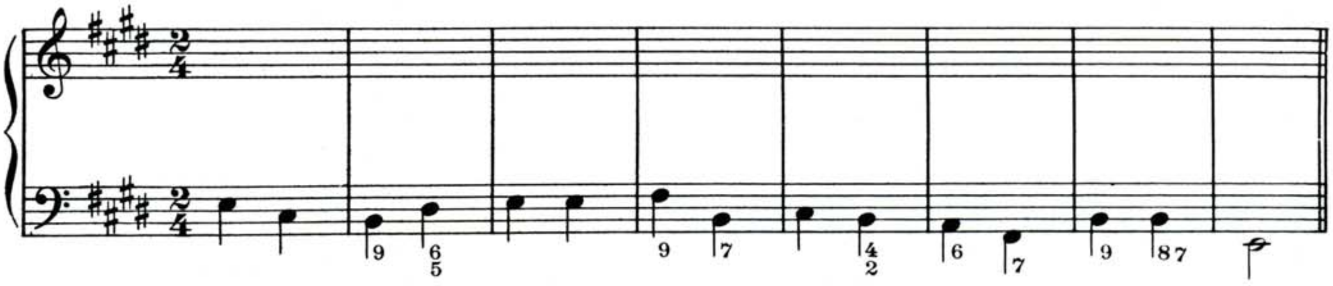


The next lesson will trace the background of jazz and its development. It is an important field of music, especially in America. But first, let's master the ninth chords.

WRITING LESSON

Fill in soprano, alto and tenor.

1



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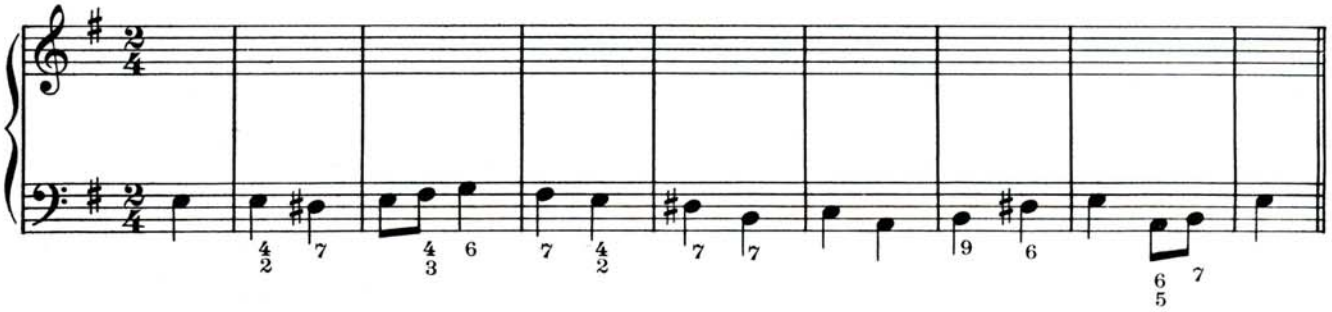
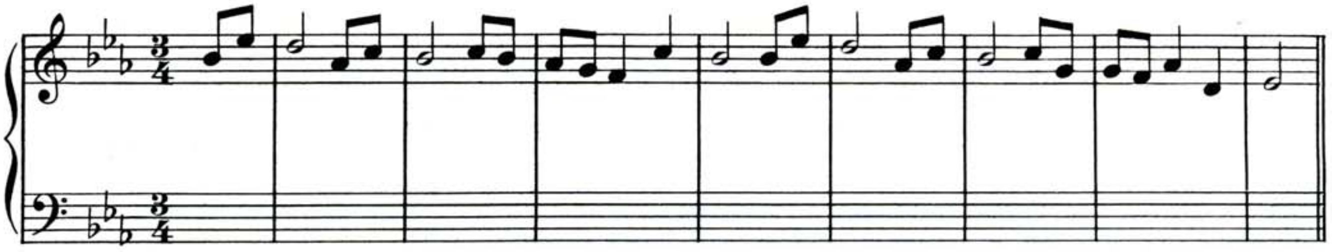


Harmonize, using ninth chords whenever possible

3



4 Using as a basis the four measures illustrated in this Lesson, including ninth chords with the added sixth, write a total of **16** measures in the same Jazz idiom. Use your own original melody and harmonies but include ninth chords with the added sixth.

DO NOT send this lesson sheet to the U. S. School of Music.
Check this writing lesson by going over it several times yourself.

BIRTH AND GROWTH OF JAZZ

Jazz is said to have begun in New Orleans, Louisiana at the turn of the twentieth century. Born in unsavory circumstances and nurtured in honky-tonks and water-front dives, it gradually grew to have a definite form of its own, since termed by connoisseurs, Dixieland Jazz. On the riverboats, it traveled up the Mississippi to Memphis, (Beal Street Blues) and to St. Louis (with her diamond rings). By the end of the 20's it had spread throughout the Nation and was as much at home in a debutante ball as in a 52nd St. speakeasy.

The original jazz band had few members: trumpet, trombone, clarinet, banjo, drums, piano and double bass. Sometimes a saxophone was included. In the old days, when jazz bands played impartially for parades, funerals and outdoor occasions of all kinds, a tuba took the place of the bass and piano and a banjo substituted for the guitar.

A jazz critic has adequately defined Dixieland music from which jazz has stemmed. He called it, "An informal gathering of temperamentally congenial jazz musicians who play unrehearsed and unscored music for their own enjoyment." A good small jazz band will take a standard 32 measure tune, play it through once in ensemble (notated or set orchestration) and then improvise on the theme, never losing it, always creating on the basic melody and harmony. By alternating improvised solos for each instrument without any written arrangement, playing the theme over and over in its dressed up forms and ending finally with a "rideout" wherein the whole band improvises in perfect harmony to the finish, the music takes on the style in jazz called a jam session.

To hear three or four good musicians, each going his own way, without interfering musically with the other is like hearing a composition by three composers instead of one, each with the same spirit and in the same groove, writing and playing at the same time and weaving together music as one.

Through the efforts of famous band leaders and excellent arrangers jazz reached a classified form in symphonic dance orchestras, but its underlying objective always continued to be individual style and improvisations.

Swing music is a jazz form written with a smooth and flowing meter avoiding irregular phrases. "Swing and sway" with smooth and even phrase patterns. This style of jazz definitely has a place in the world of music and in a very short period of time, it has grown into a true art form.

A blues effect in jazz is created by introducing moving notes that are foreign to the melodic or harmonic phrase. In the case of the use of the flatted 7th note as a blue note, it is possible to maintain the blue effect by holding it.

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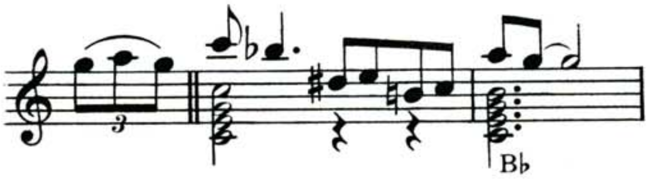
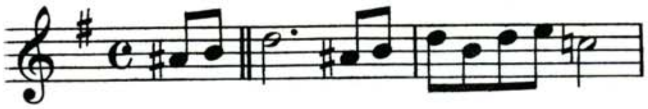


The flatted 3rd degree is also a blue element but it seems to shift its weight back and forth as if not sure where to land. This sliding around on the 3rd degree results in a typical blues effect.

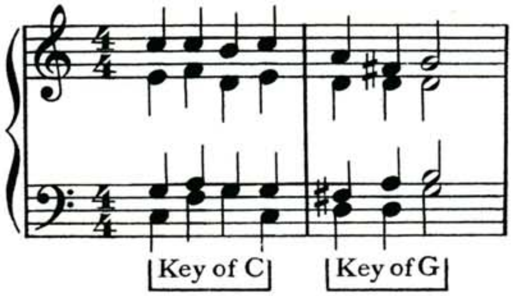


MODULATION

A composition written with a key signature is in a definite tonality. The letter name of the key signature denotes the keytone or tonic chord. Around this chord of I evolve all other related chords of the key such as the IV, V, etc. chords. The feeling of tonality is normal, and once a tonality is set, it is easily retained in the ear and consciousness of the listener. Many harmonic rules which govern the progressions of chords were originally a result of the demand for the preservation of tonality.

Without upsetting the feeling of the original tonality, it is possible to choose any chord within a tonality and call it a new keytone or key center and resolve its related chords around it. This change of keytone position moves from the original tonality to a new tonality. This is called modulation.

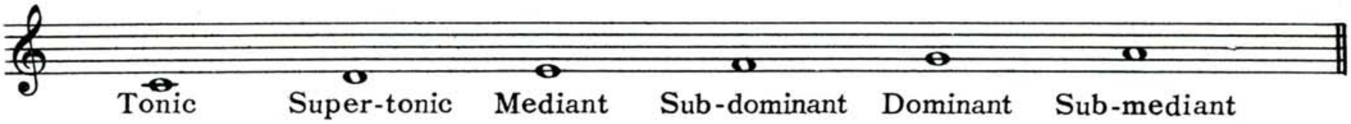
MODULATION IS PASSING FROM ONE KEY TONALITY TO ANOTHER. ACCIDENTALS ARE USED INSTEAD OF A CHANGE OF KEY SIGNATURE.



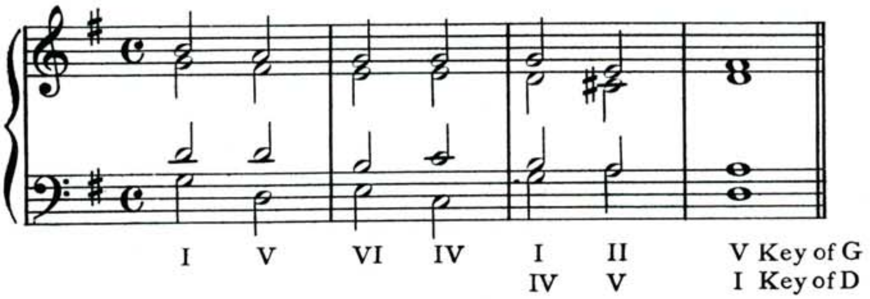
Folk music is the natural expression of a people. Italian folk songs, Irish jigs, Hungarian gypsy dances all have a character of their own which wells up from the natives as they work or play. This music is not written in notes until a trained musician jots it down. Because of the folk music's humble beginning, it usually has simple harmonization such as the I, IV and V chords. In three part song form, the

middle section is sometimes in the key of the dominant. Modulation often occurs on a cadence of a phrase and the new keytone continues until a feeling for a new change or a return to the original key demands another modulatory phrase. These are only a few of the many possibilities of modulation.

Any of the diatonic notes of a key except VII may be used to set up a new key center. A modulation may be made to the key of the dominant, sub-dominant, mediant, super-tonic or sub-mediant.



Modulation consists of two functions: the preparation and the arrival. The preparation actually overlaps because the preparation chord or chords belong to the original key as well as the key into which the modulation moves.



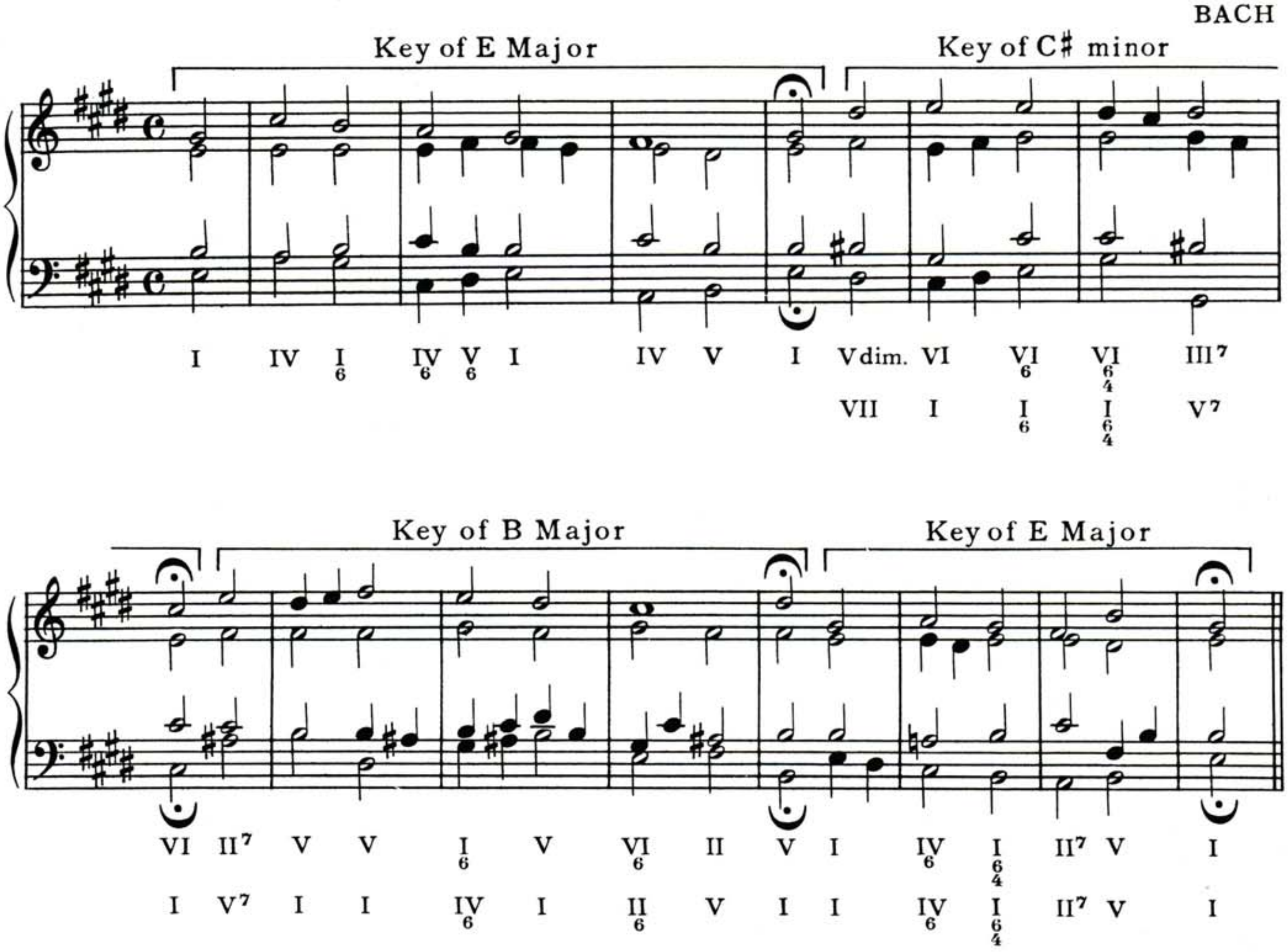
In some cases, the modulation is made directly on the first chord of the new key. In this case, the key *from which* the modulation is made ends with the I chord or sometimes the VI chord. This is seen in the illustration below.

THE MOST DIRECT MODULATION MAY BE OBTAINED THROUGH THE V^7 AND ANY OF ITS INVERSIONS, ALSO THROUGH THE VII^7.

In entering the new key, the I 6/4 may be substituted for the V^7. It is necessary to continue for several chords in the new keytone in order to establish the change of tonality. After a cadence a new phrase may begin with the I chord of a new key.

In the chorale, which appears in part at the top of page 4, the upper line of Roman numeral symbols is calculated entirely in the tonality of the key of E major. The lower symbols of the double line indicate the change of keytone wherein a modulation has been made to a key other than the key of the original tonality.

The B Major chord at the end of the cadence of phrase 3 in the 11th measure is heard and treated *as both* the I chord of B major and the V chord of E major.

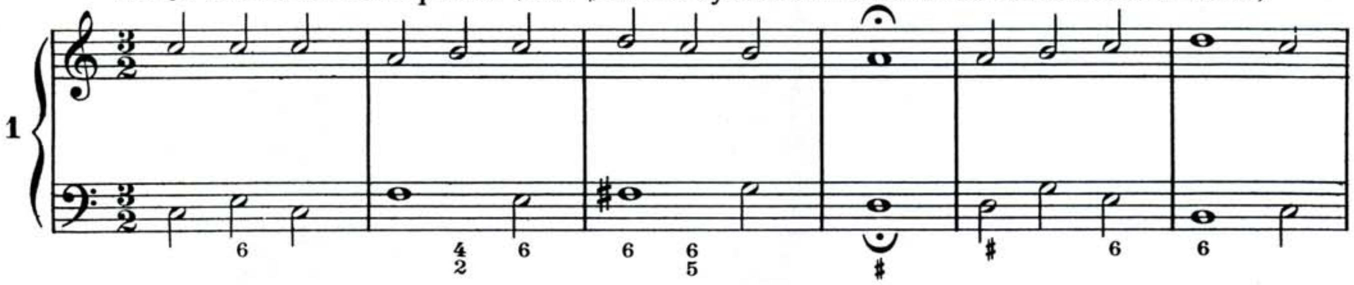


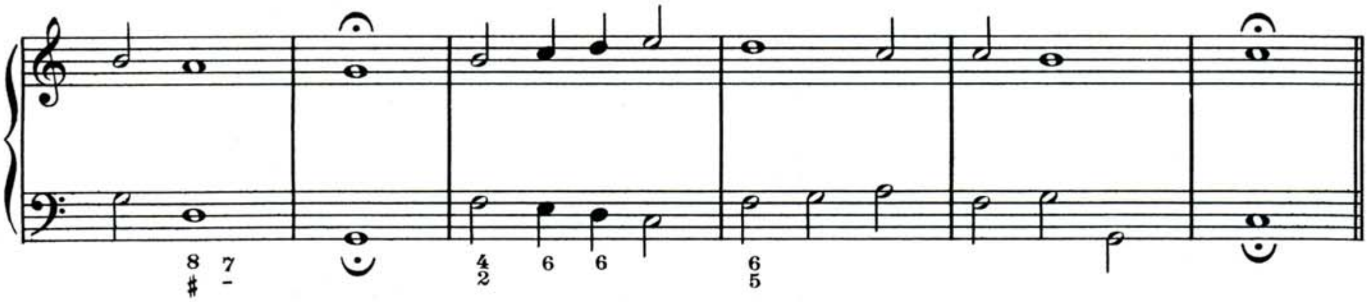
Be sure that before modulating, you definitely establish the tonality feeling. Throughout the modulatory progressions, the chords of the key signature must give the impression of having the most prominence. There must never be any doubt that the original keytone and key relationship is permanent and the keys of the modulation temporary or passing tone colors.

It is easy to spot a modulatory passage when analysing music by observing where accidentals appear. It is true that in identifying a minor key, you look for the raised seventh. But if a sharp, flat or natural appear on any other degree than the seventh within the key of the piece, you can be sure that a modulation is present.

WRITING LESSON

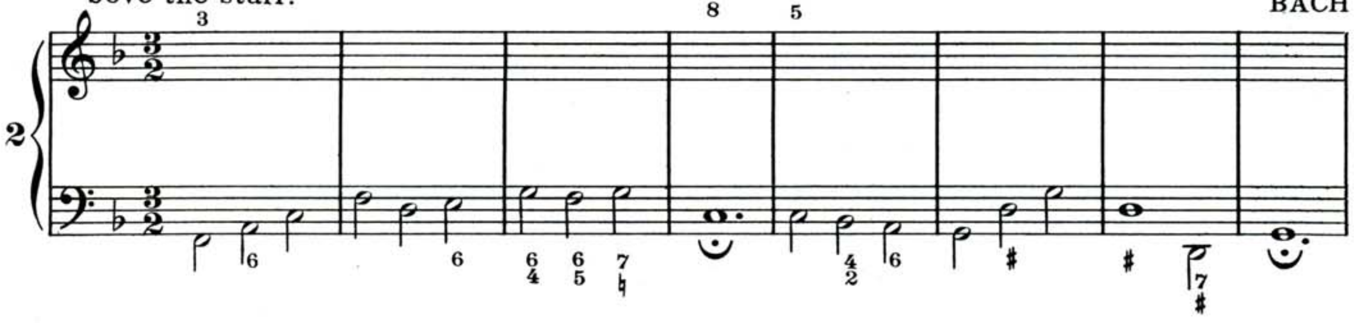
Write alto and tenor parts. (The ♯ in the symbols indicates modulation accidental.)

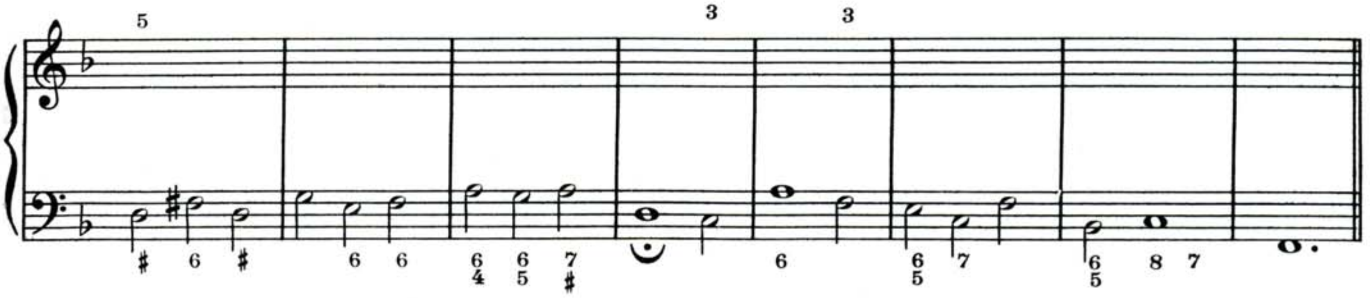




Fill in soprano, alto and tenor parts. The scale degree for soprano part is marked above the staff.

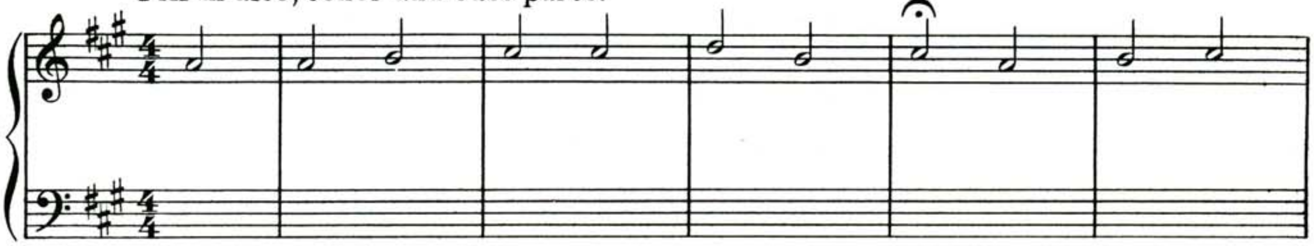
BACH

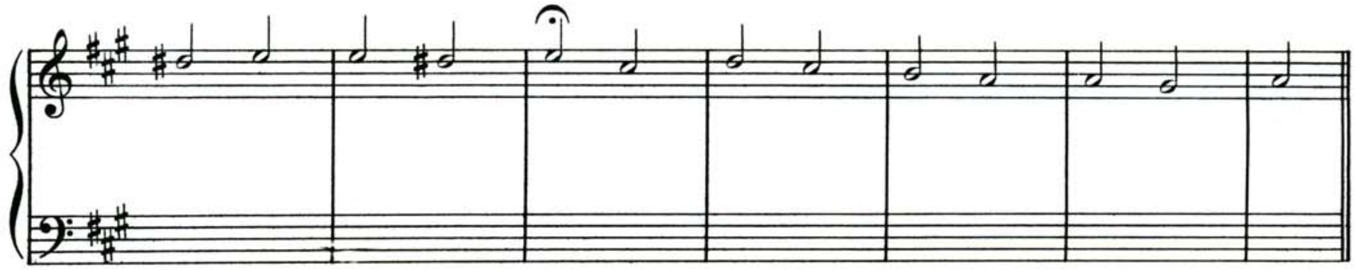




Fill in alto, tenor and bass parts.

3





4. Write a four-part progression for each of the following outlines, observing rules for modulation.

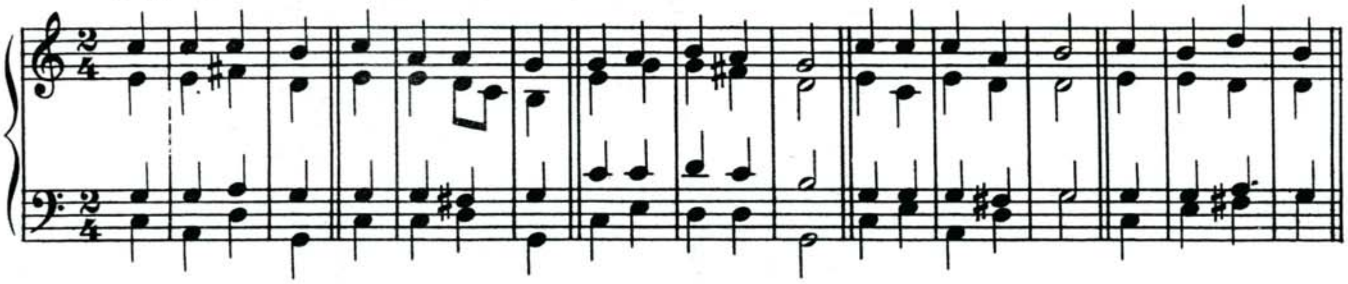
C major	G major
I V^7 I	V^7 I V^7 I
C major	F major
I V^7 I	V^7 I V^7 I
C major	D minor
I II^7 V^7 I	VII^7 I V^7 I
C major	E minor
I V^7 I	V^7 VII^7 I
C major	A minor
I V^7 I	V^7 I V^7 I

MODULATION (continued)

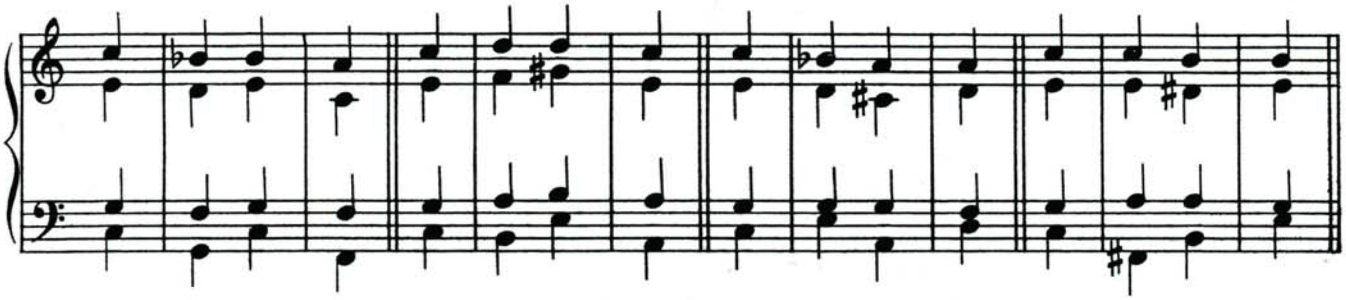
A KEY MAY MODULATE TO ANY OF THE KEYS REPRESENTED BY ITS DIATONIC SCALE CHORDS THROUGH THE VI, IV AND II^7 CHORDS AND THEIR INVERSIONS. THE KEY FROM WHICH THE MODULATION IS MADE ENDS WITH THE I CHORD OR THE VI CHORD.

Here are some examples modulating from the key of C to its diatonic scale chords.

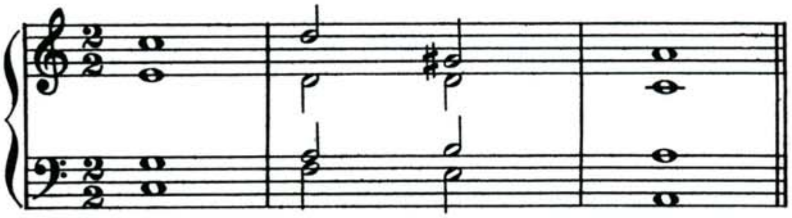
C to G



C to F C to A minor C to D minor C to E minor



In using only one preparatory chord to modulate, there is a certain abruptness that is not always suitable in actual composition. The chords that are introduced before the dominant seventh of the new key are sometimes called "bridge" chords. They tend to make the modulation more smooth and gradual. THE BRIDGE CHORD MUST BE COMMON TO BOTH KEYS. (Common means related).



C- I C-II_6 Aminor-V^7 Aminor-I

Aminor-IV_6

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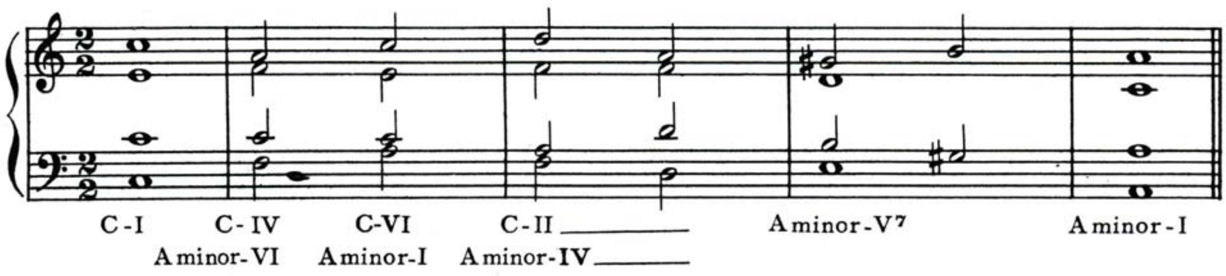
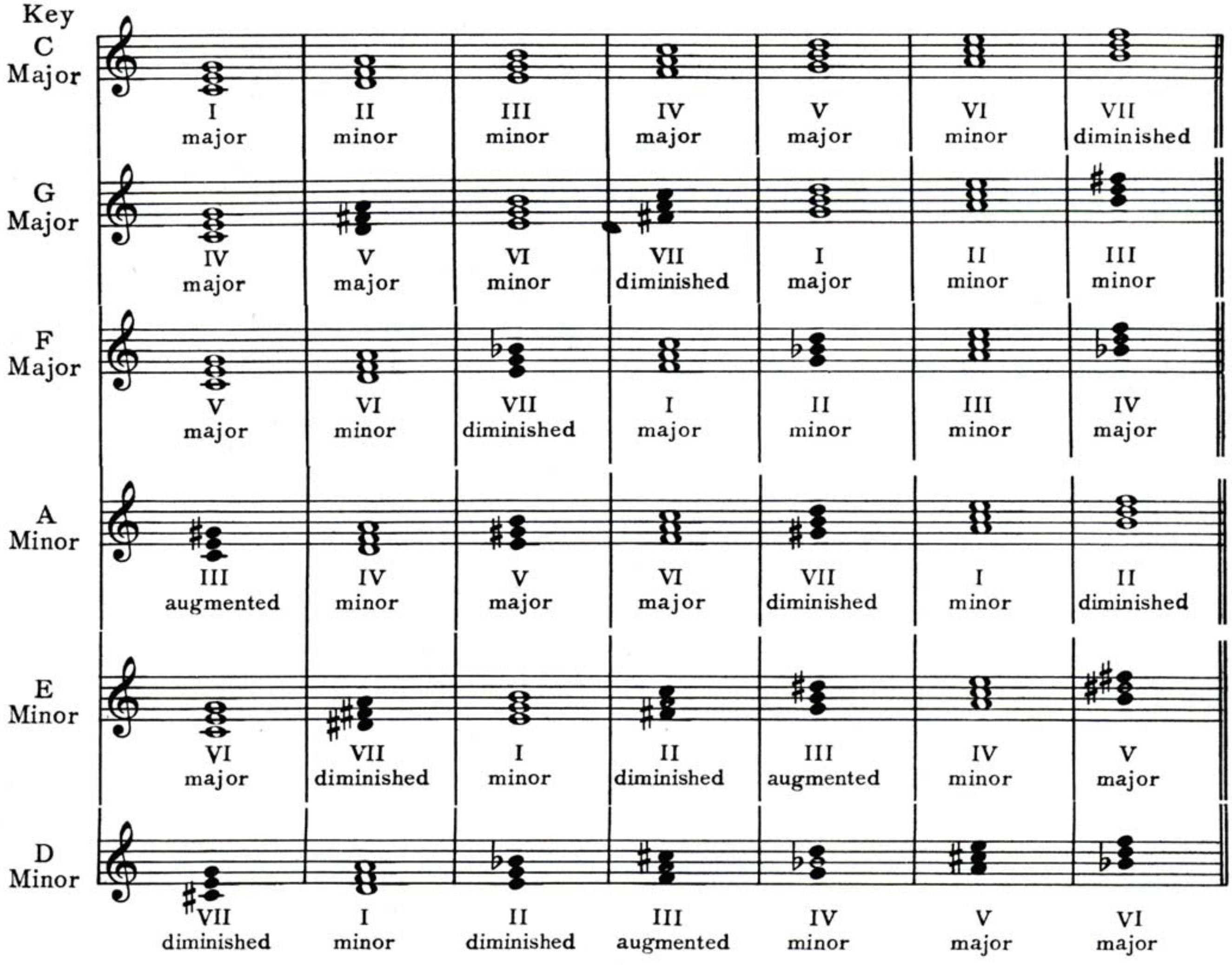
In this example, the bridge chord D-F-A is common to both C major and A minor.

Here is a gradual modulation using bridge chords.



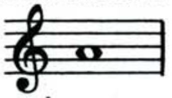
In order that you may see the possibilities of the bridge chords within a key relationship, study and utilize this chart.

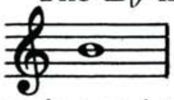


The top line shows the diatonic scale chords in the key of C major. Below these, written on the corresponding fundamentals, are the chords of each related key to which the key of C major may modulate. The whole note chords represent the bridge chords that can be used within the modulation. The solid notes indicate those chords which because of the chromatic alteration cannot be used. There are four bridge chords possible in modulating from C to G, four from C to F, four from C to A minor, three from C to E minor, and one from C to D minor. If a similar table is constructed illustrating the possible bridge chords modulating from a minor key to its closely related keys, it will be found that there are fewer than in the case of a major key. In any event, there will always be at least one bridge chord possible between any given key, major or minor, and each of its related keys.

BRASS INSTRUMENTS

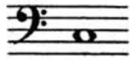
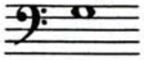
The B♭ trumpet is the soprano voice in the brass section of orchestral instruments. It is a transposing instrument and, like the B♭ clarinet, its music must be written a tone higher than the piano score.

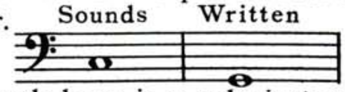
Suppose we explain here that *standard pitch* or *concert pitch* means *a note is written where it actually sounds.* All non-transposing instruments are tuned to concert pitch. This means that tone A  vibrates at the rate of 440 vibrations per second. When an instrument such as piano, organ, violin or any other non-transposing instrument, is tuned to a tuning fork, the A of the instrument must be pitched exactly with the A vibrating on the tuning fork. When a symphony orchestra tunes up the oboe sounds its A and the other instruments tune to it. The notes for non-transposing instruments are written in the score exactly where they sound on the instrument.

The B♭ instruments such as clarinet and trumpet, tune their B  to the A of concert pitch. Thus all instruments, transposing and non-transposing, can play together and be in tune.

The trumpet is useful in both solo and ensemble effects. Do not write long phrases or passages for the trumpet in high registers as it will tire the lips of the player. Very few trumpet artists can keep the tightly compressed lip positions used in playing high tones for any length of time.

The trombone is tuned to concert pitch and is not a transposing instrument. It has a lower range than the trumpet which you will see in the *Chart of Instruments and Their Range* that appears in Lesson 42. The trombone is very useful as a solo instrument; many arrangers employ it with success as a blending effect with clarinets, saxophones, trumpets and French horns.

The most difficult of the brasses is the French horn, or horn in F. It is a transposing instrument wherein the notes of the score should be written a major fifth higher than they actually sound. Thus a note sounding  should be written . However, it has become a custom to write notes for French horn one octave lower in the bass clef than they should actually be written. Therefore, write for horns in F one perfect fourth lower instead of one perfect fifth higher.

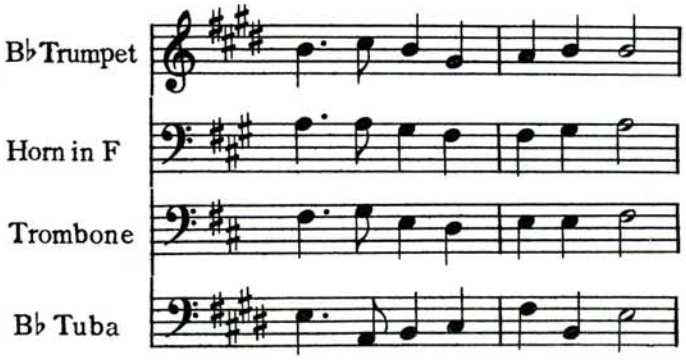


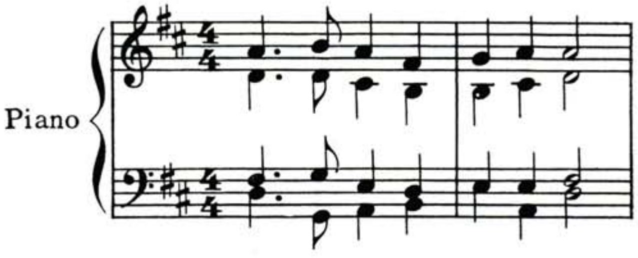
The French horn is a solo instrument used only in symphony and small orchestral ensembles, — not in the jazz band. Do not write extremely difficult passages or trills for the French horn as they are too technically arduous for the average performer to play. Long sustaining notes and slow lyric phrases are a wise choice for the composer or arranger to employ in French horn parts.

The lowest pitched brass instrument is the bass tuba. It is comparable with the double bass of the string section. Have you ever heard the low omph-pa, omph-pa of a military band? This is the tuba holding a steady bass impulse for the varied rhythmic flow of the other instruments. The most commonly used tuba is the B♭ which means that its notation will be transposed one tone higher than the notes of the non-transposing instruments.

Some composers write for transposing instruments in the concert pitch key. This means that the players must transpose their part to agree with the other sections of the orchestra. However, it is a wise composer or arranger who notates his scores to make it as easy as possible for the instrumentalists. Keep in mind that it is harmful to a composer's popularity to clutter up a score with unnecessary markings. It will not increase his fame to write music as difficult as possible in order to prove his ability. Musicians enjoy playing good music — but do not care to show their best technical skill when playing with an orchestra or band, unless of course, they have a solo. Write what you feel musically but express it and notate it in the simplest manner possible.

Here is an example of the brass quartet with each instrument representing a respective voice part of four part voice writing.



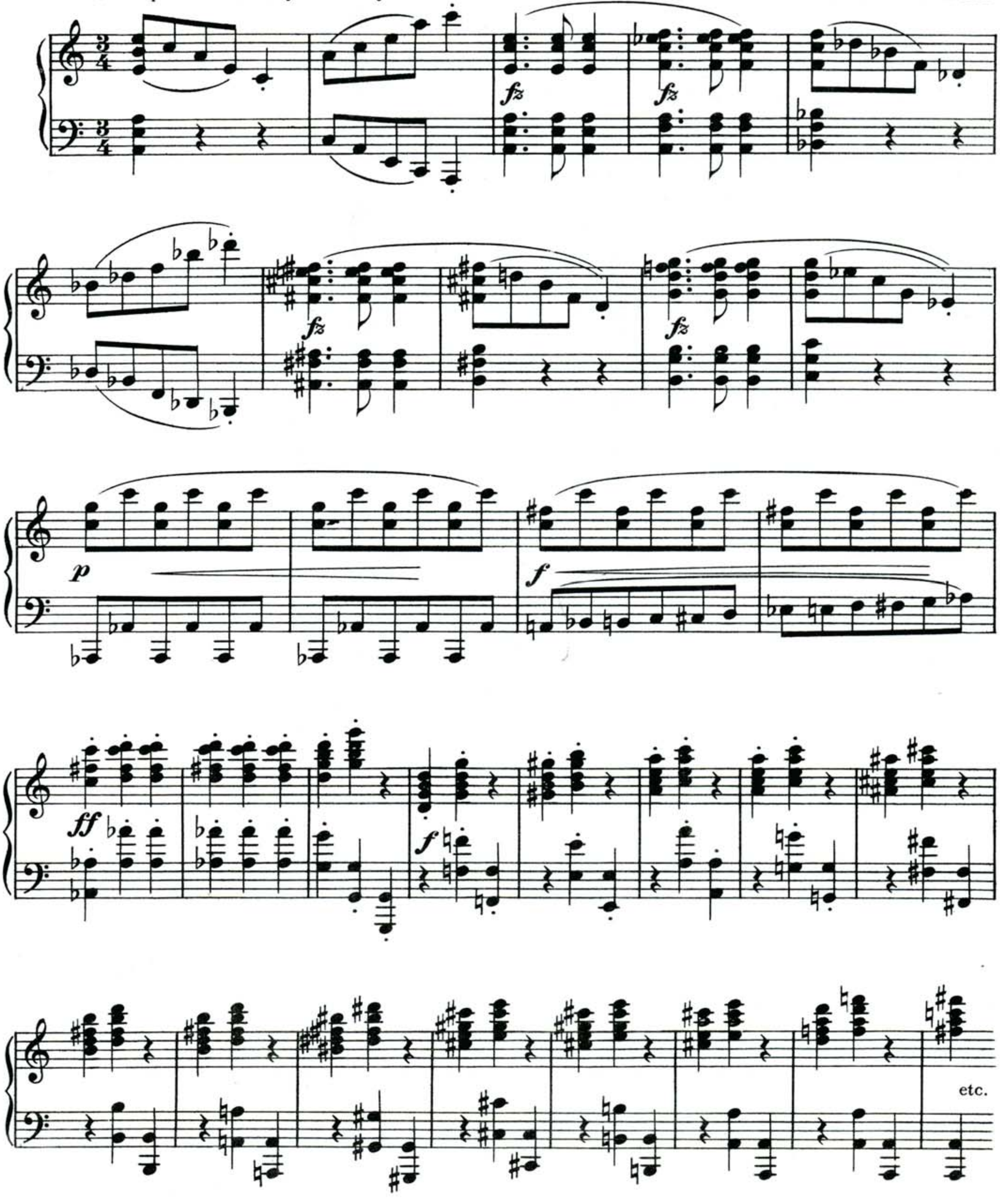


WRITING LESSON

Analyze the modulation below labeling the chords beneath the score.

Excerpt from Fantasy in C Major

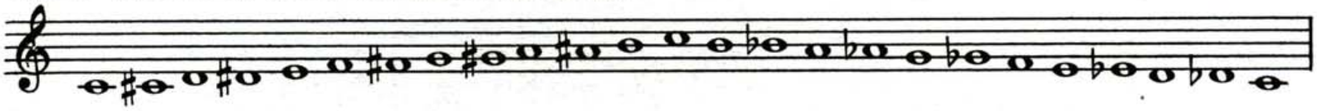
FRANZ SCHUBERT



MORE ABOUT THE CHROMATIC SCALE

In the Writing Lesson of the previous lesson, excerpt from *Fantasy in C Major* by Schubert, in the bass of the 13th and 14th measures, there is a complete chromatic scale.

A SCALE ASCENDING OR DESCENDING ENTIRELY BY HALF STEPS IS A CHROMATIC SCALE.



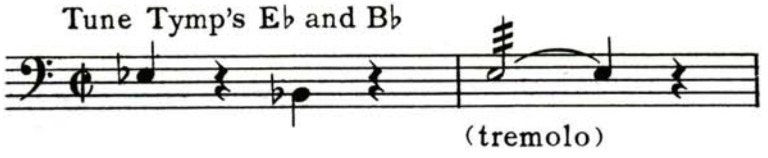
Notice that this scale, when played on the piano, takes in every white and black key in successive order. A chromatic scale has no tonality or keytone. It may begin and end on any tone.

Although it is not a rule, it has become customary for a composer to use sharps when ascending and flats when descending in the chromatic scale. As you see, Schubert wrote otherwise in the illustration in lesson 41, but then Schubert lived from 1797 to 1828. Since this time, notation has become more standardized.

A chromatic scale may be any number of notes from three on up, beginning and ending at the composer's wish. It may be written with practically any harmonization provided it sounds well. It is not good taste for a composer to use the chromatic scale for any length of time. A short snatch here and there is effective. Do not attempt to harmonize every note of this scale. Its intention is that of passing tones.

PERCUSSION INSTRUMENTS

The drum is the most common rhythm instrument of the orchestra. There are several types of drums. The tympani, kettle drum, is the largest and is used in concert orchestras and symphonies. In symphony orchestras there are usually two kettle drums and often three. One man plays them all. They are tuned to the tonic, dominant and sub-dominant degrees of the key in which the orchestra is playing. A kettle drum may be tuned in any key. Its notation is written in the bass clef.



Tymp's means tympani. Stems in opposite directions distinguish between drums and their tuning. A tremolo can also be written tr.

In writing for the tympani, be sure to give the player several measures rest if he must retune to agree with the change of key in the orchestral tonality.

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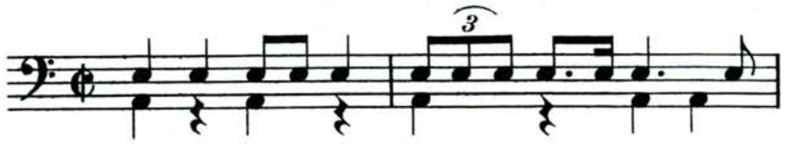
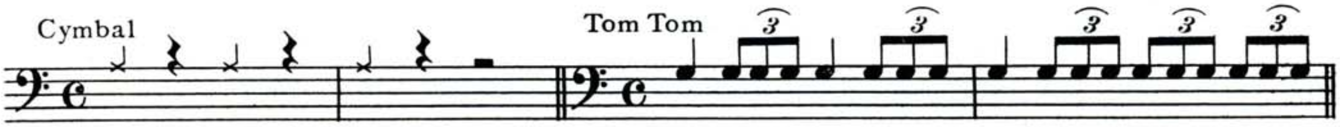
Another type of drum is the snare drum, also notated in the bass clef. Its purpose is much the same as the tympani, although it is not tuned to a definite pitch, in that it can beat out various rhythms. The bass drum usually plays on the 1st and 3rd beats in 4/4 time or 1st beat in waltzes in order to emphasize the accent of the measure. These two drums when written together look like this:



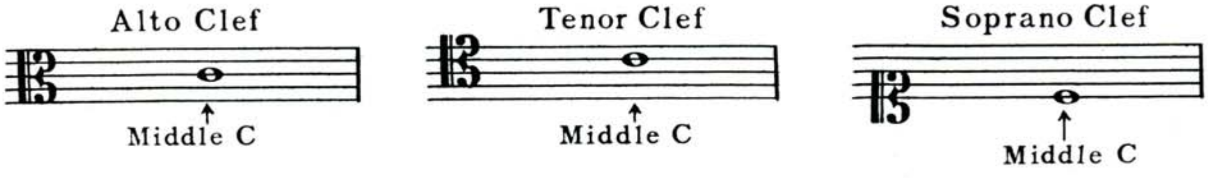
Using the first space in the bass clef for the bass drum, the 3rd space for the snare drum, it is possible to write the remaining percussion instruments on the 4th space or 5th line in order to differentiate between them all. In the score, all instruments must be identified. There are a multitude of percussion effects created by tambourine, tom tom, cymbal, triangle, bells, blocks, gongs, whistles and on into the realm of clashing sound. These instruments are utilized for realistic and atmospheric effects to emphasize the style of an orchestration. They should be used sparingly, chosen wisely and written carefully.



In a popular orchestra or jazz band, there are several string instruments not mentioned heretofore that represent rhythm instruments also. They include the banjo, guitar and ukulele. Other instruments capable of melody and solo work are the piano, harp, celesta, piano accordion, vibraphone, xylophone, mandolin and organ. From this you can see what gigantic creations are possible with the orchestra. Needless to say, it takes years of study and practical writing to develop an individual style for orchestral composing or arranging. We hope you will become curious enough with this introduction to the instrumental world to delve into books and scores and further your talents by composing more and more in the instrumental element. Above all: listen — listen — listen and think!

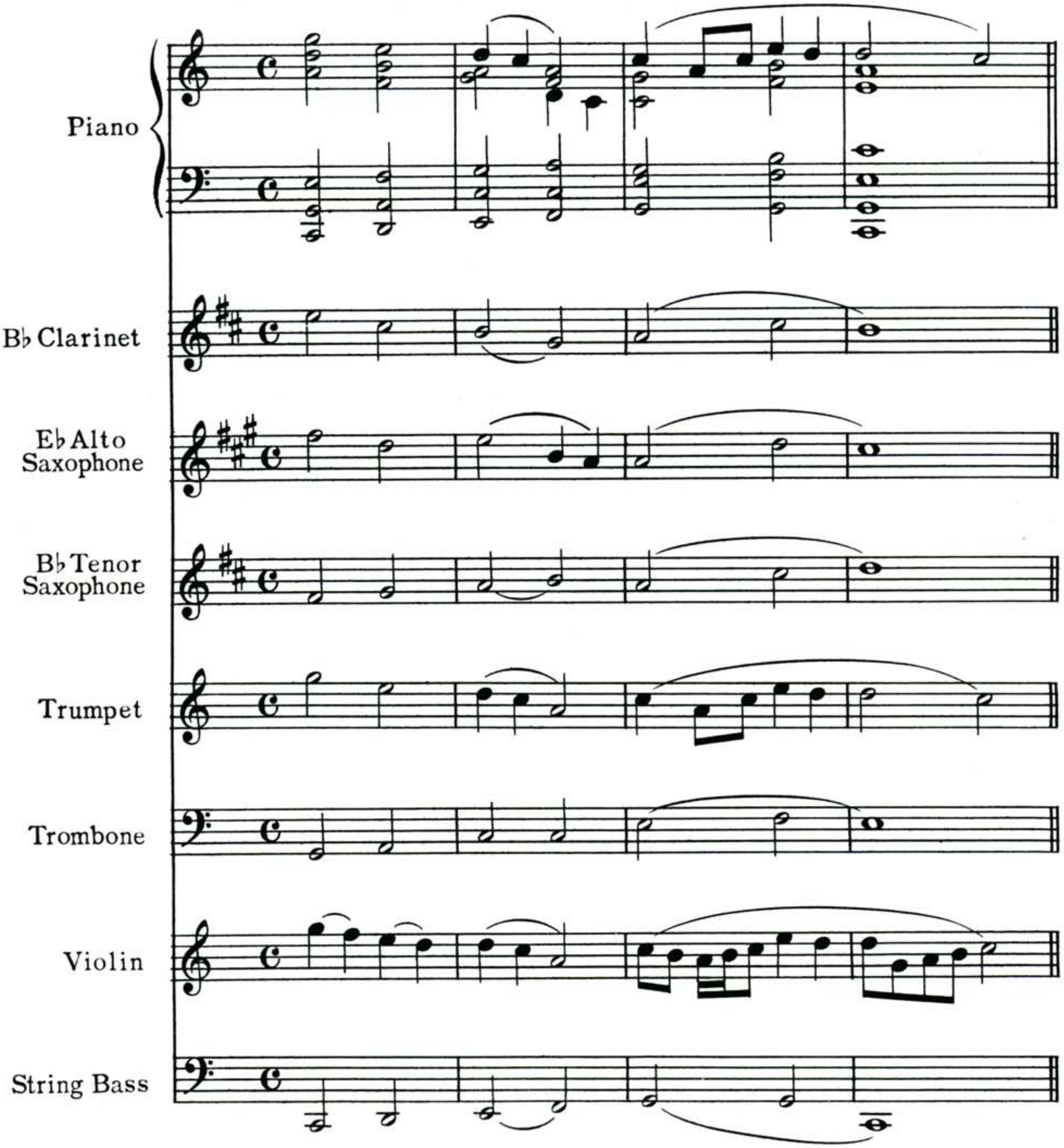
Clef Signs

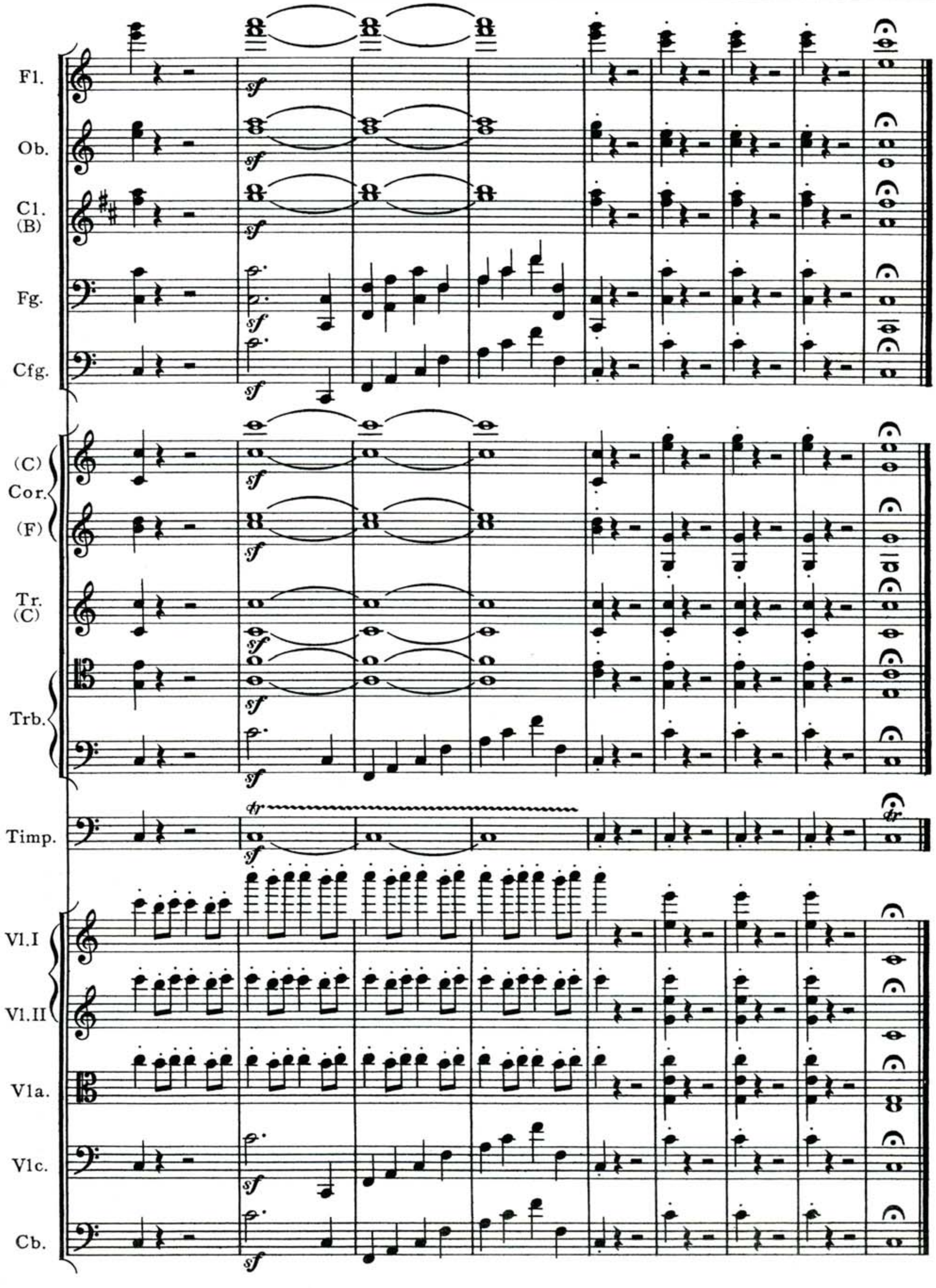
Some instruments have a pitch range that cannot be easily written on either the treble or bass clef. In order to avoid using many leger line notes, which are difficult to read, composers notate for these instruments with the alto, tenor and treble clefs.



You have used the alto clef when writing for the viola in lesson 30. If you will remember where middle C is placed in using these lesser known clefs, you will have no trouble in writing for them.

In order that you may see the orchestra as it looks on paper, we close this lesson with two examples of the many combinations possible, one from a symphonic score and the other from a jazz manuscript. They look complex at a glance but after you have analyzed each line and thought about its purpose in the whole woven pattern of tone, you will find that writing for an orchestra is complete devotion to an arduous task. It takes time but it *is* quite possible and one need not be a genius to be a composer. It is up to you.

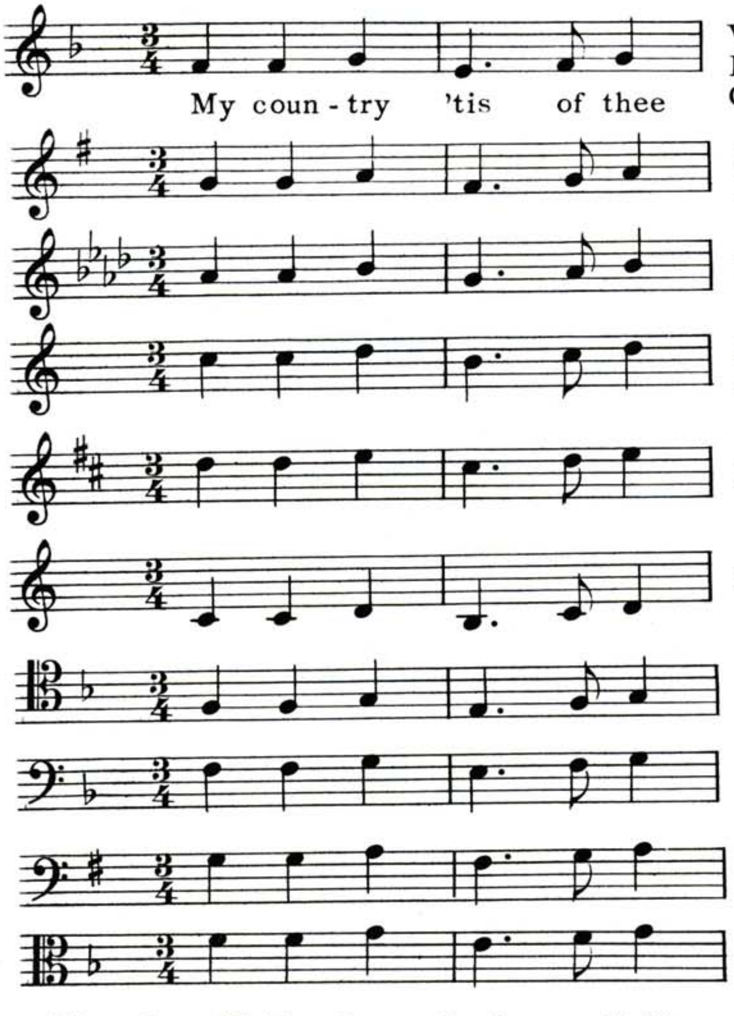



Fl.
Ob.
Cl. (B)
Fg.
Cfg.
(C) Cor. (F)
Tr. (C)
Trb.
Timp.
Vl.I
Vl.II
Vla.
Vlc.
Cb.
sf
tr

As you will see by the following chart for correct key signatures and clefs, some instruments require the use of several clefs depending on what part of their range of pitch they are playing. The important thing to remember in writing orchestral scores is to use as few leger lines as possible making it easier for both the instrumentalists and conductor to read the score.

CHART SHOWING CORRECT KEY SIGNATURES AND CLEF SIGN

For non-transposing and transposing instruments.
All these instruments, if played together would then agree in pitch and key.



Violin, Voice, Cello, Piano, Oboe, Flute
Piccolo, (sounds one octave higher)
C Melody Saxophone

B♭ Trumpet, B♭ Cornet, B♭ Clarinet
B♭ Soprano Saxophones

Trumpet in A, Cornet in A, Clarinet in A

French Horn or English Horn in F,
Alto Clarinet or Bass Horn in F

E♭ Horn or Alto Saxophone in E♭

Trumpets in F

Trombone, Bassoon, Cello (Tenor Clef)

Trombone, Tuba, Bassoon, Cello
Double Bass (sounding one octave lower)

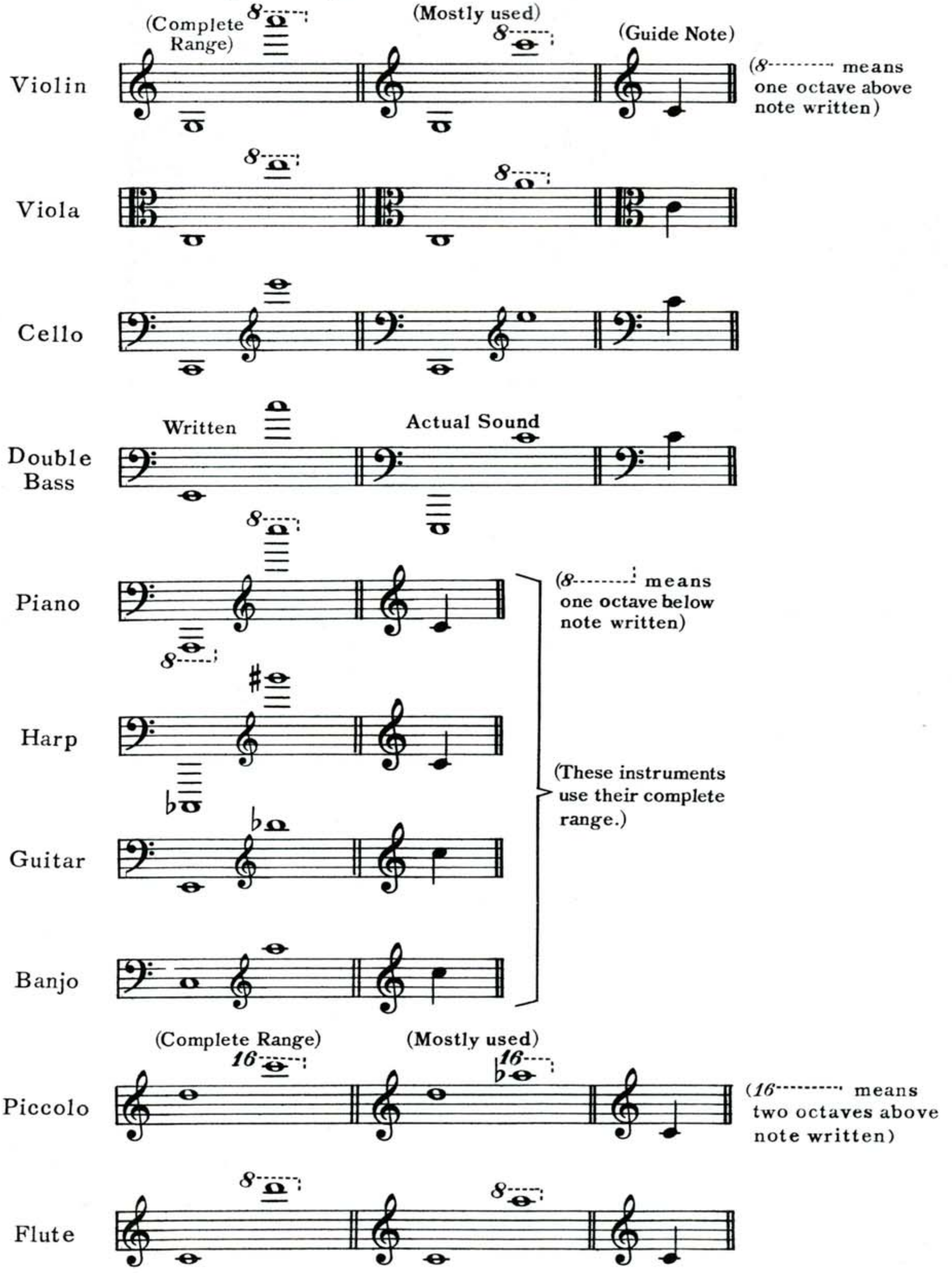
B♭ Bass Clarinet, B♭ Bass Saxophone

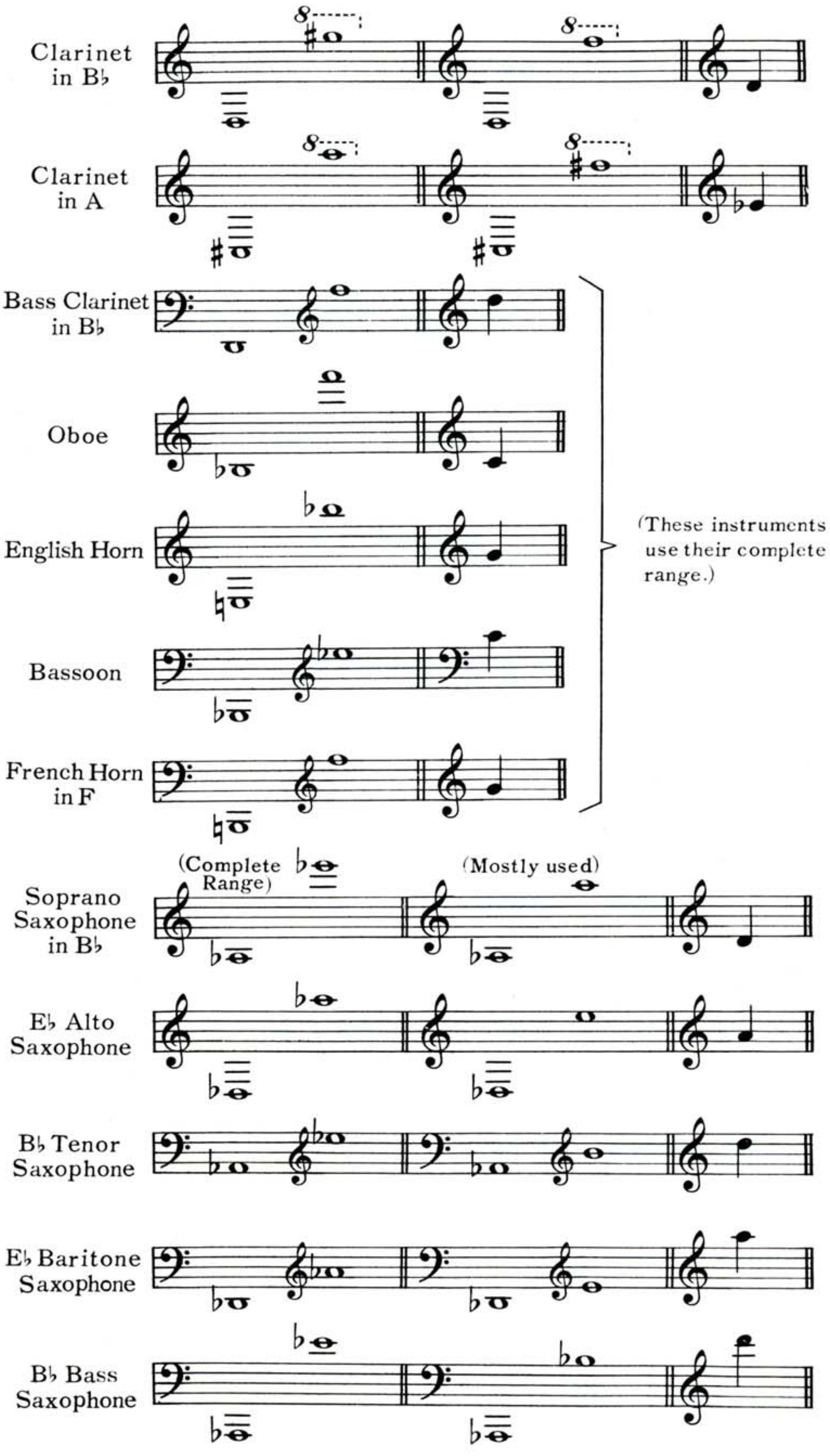
Viola (Alto Clef)

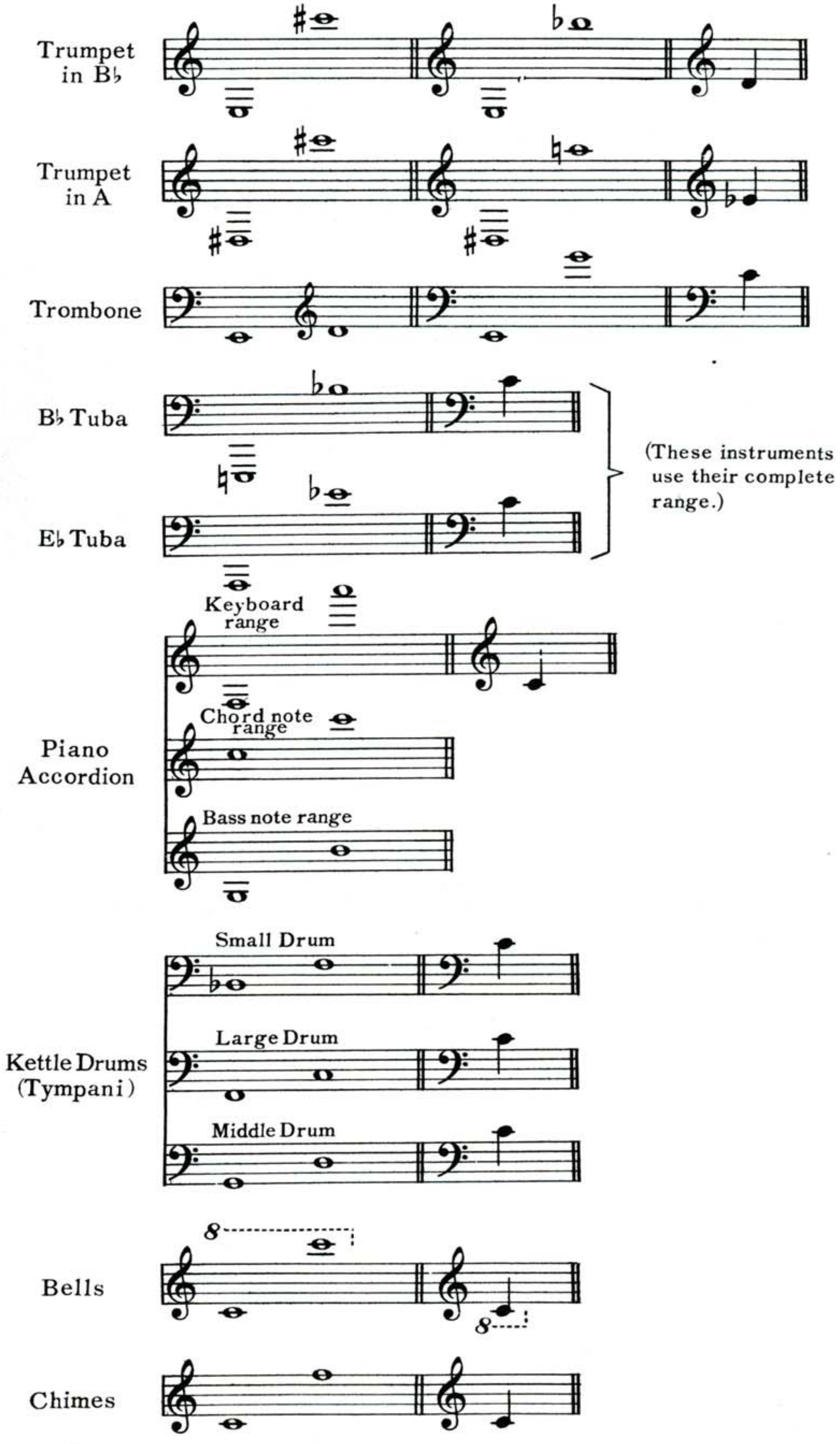
There is no Writing Lesson for Lesson 42. However, you would benefit greatly by writing out some familiar melody such as *America* using the various clef signs and key signatures necessary for the instruments of the orchestra. If you would like it corrected, send it to the Harmony Department, U. S. School of Music.

INSTRUMENT CHART SHOWING RANGE, TRANSPOSITION AND CLEF

The quarter notes show where middle C must be played to actually sound middle C. Although some instruments cannot play middle C, the note middle C is used throughout as a symbol and should be regarded only as a transposition guide.



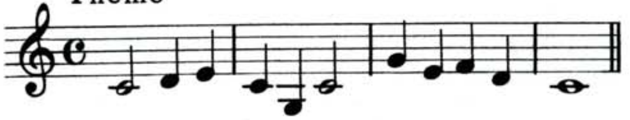

Clarinet in B♭
8
Clarinet in A
8
Bass Clarinet in B♭
Oboe
English Horn
Bassoon
French Horn in F
(These instruments use their complete range.)
Soprano Saxophone in B♭
(Complete Range)
(Mostly used)
E♭ Alto Saxophone
B♭ Tenor Saxophone
E♭ Baritone Saxophone
B♭ Bass Saxophone


Trumpet in B♭
Trumpet in A
Trombone
B♭ Tuba
E♭ Tuba
(These instruments use their complete range.)
Keyboard range
Chord note range
Bass note range
Piano Accordion
Small Drum
Large Drum
Middle Drum
Kettle Drums (Tympani)
8
Bells
8
Chimes

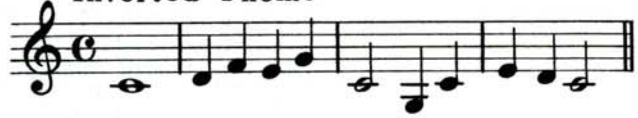
INVERTED THEME

An inverted theme is what its name implies: a theme repeated in reverse. It is a trick of the composer to introduce a new element without completely departing from the original theme. The melodies most adaptable to inversion are those which move scale-wise or within the tones of a chord. The possibilities are endless. We will give you a few to help you identify them.

Theme

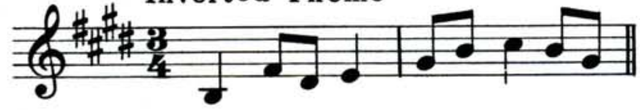


Inverted Theme



Theme

Inverted Theme

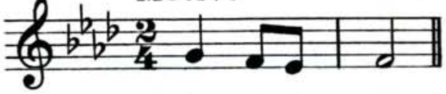


An inverted theme is sometimes used for contrast in the B section of an ABA song form. It is constructed by writing the notes of the original theme backwards, figuring horizontally instead of vertically as in chord inversions. The time value of the notes is irrelevant; however, they can be duplicated in the reverse form, as seen in the previous example.

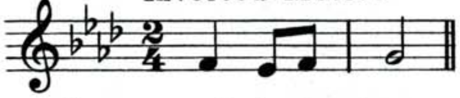
Notice that the inverted theme actually results in an entirely new theme. Here is the interesting part of developing a melody—the innumerable possibilities with only seven fundamental tones, actually, twelve different tonalities.

Sometimes a composer will reverse a motive or short phrase.

Motive



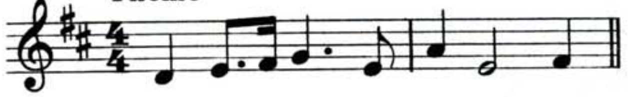
Inverted Motive



Here the inverted motive duplicates the notes of the motive in reverse order but the rhythmic pattern is not inverted. Therefore, the time value of each note changes in the inverted theme.

All themes cannot be inverted. As you will learn by trial and error, some themes when inverted result in a misplaced accent. However, if syncopation is desired, an inverted theme is one of the easiest ways to create a syncopated theme.

Theme



Inverted Theme

The inversion of a theme is quite useful in the development section of a long composition such as a sonata. In this form the theme and secondary theme dominate the first section. In the development, the theme grows from small parts of the original theme called motives into lengthy musical patterns which weave in and out, growing in intensity until the arrival of a colorful climax ends the

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section and makes way for the recapitulation, or repeat, of the first theme. It is during this development section that an inverted theme can become quite useful.

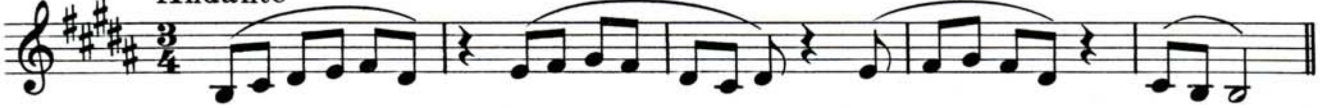
Try writing a few melodies, then test their possibilities for inversion.

Rests

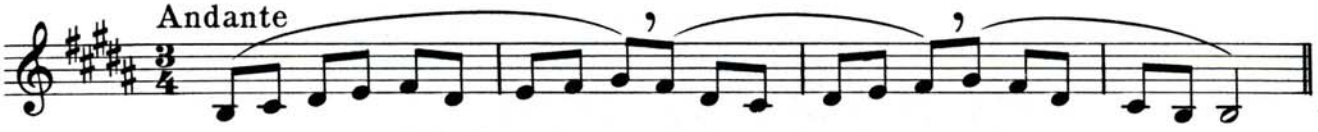
You have heard the enthusiastic child who wishes to relate an exciting adventure and reels his story from beginning to end without pausing for breath. Yes, he leaves you breathless. This is not our customary manner of speech. We pause for a breath at the end of a phrase, sentence or paragraph. Music is a language of tone so it, too, contains pauses for breathing. The long phrases require a longer rest value. After you have written a phrase of a theme sing it over and try to feel whether or not a musical breath is needed. Here is a theme, shown first without a musical breath and followed by two examples of phrase breathing. The note before (𝄒) is cut short to allow for a breath; the following note can then be taken easily to balance the rhythmic value of the measure.

Andante — Without Musical Breathing

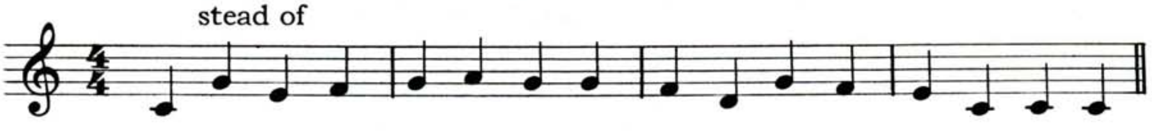
Andante — With Musical Breathing



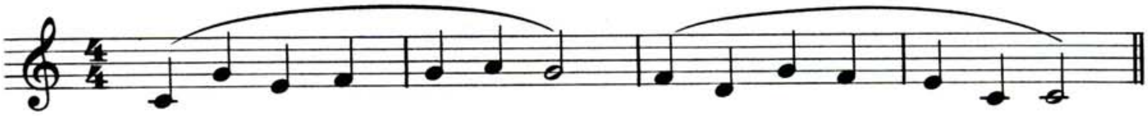
Andante



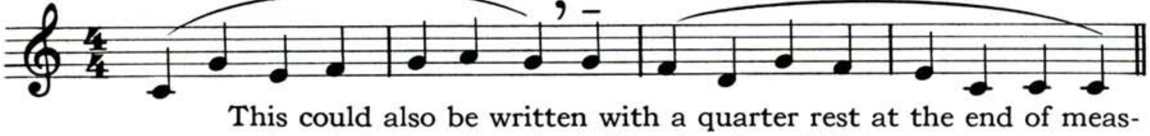
A feeling of pause, or breath, in a melody may also be obtained with a longer note value at the end of a phrase. For instance, instead of



use



or

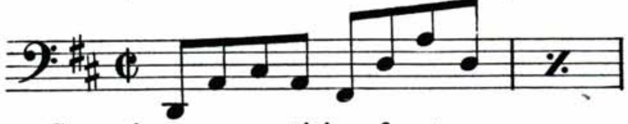
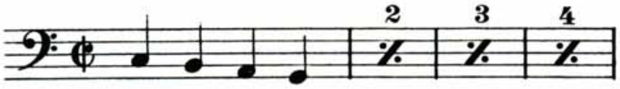


This could also be written with a quarter rest at the end of measures 2 and 4, changing the half notes G and C to quarter notes.

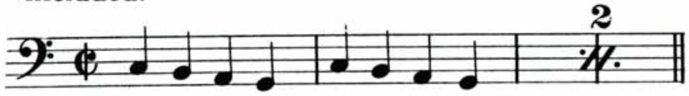
It is valuable to know that a whole rest ▬, when used to fill up a measure completely, can be worth 3 beats, 4 beats or 6 beats. In 4/4 time a whole rest always gets 4 beats and, therefore, equals a full measure of rest. But in 3/4 and 6/8 time, it can also be used for a complete measure rest even though it then equals 3 beats or 6 beats according to the time signature.

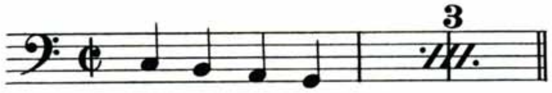
The Measure Repeat Sign

When writing a lengthy composition or arranging an orchestration, the composer may use a convenient sign which indicates an exact repetition of the notes and rhythm of the previous measure.

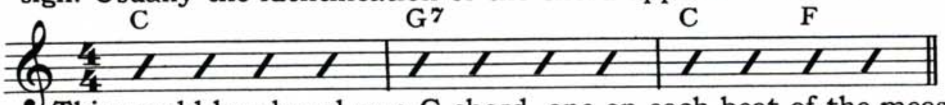

or


Sometimes a repetition for two or more measures is indicated by the sign and the desired numeral for the measures of repeat is included.



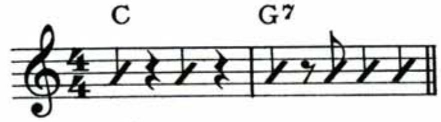
or


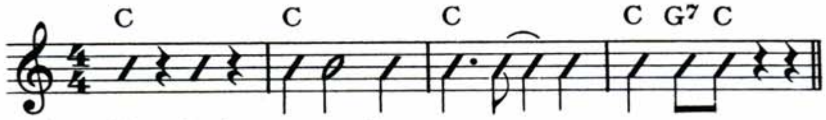
When a chord repeats for any length of time, it is more quickly written and more easily read by the use of another type of repeat sign. Usually the identification of the chord appears above the staff.



This would be played as a C chord, one on each beat of the measure, and the G^{7} chord repeated on each beat of the second measure. The instrument and its place in the arrangement determines the position of the chord. This type of sign is common in the music of string instruments such as the guitar, banjo, ukulele and, of course, the piano.

For a variation in rhythm, the repeated chord sign can look like this:



or


Speaking of signs, you have used the abbreviations *aug.* for augmented and *dim.* for diminished. These abbreviations may be replaced by using a + sign for augmented and a small o for diminished. The chord labeling would then look like this:

C+(C aug.)C^{O}(C dim.); D+(D sug.)D^{O}(D dim.).

For a Writing Lesson, try composing several inverted themes employing rests to give your music the pulse of breathing. Create your melodies as naturally and as lyrically as you speak.

THE EXCEPTION TO THE RULE

A rule is made to set a standard so others who follow in the same path may proceed with assurance and understanding. However, it is often due to circumstances surrounding the situation that an exception is made to the rule. The best procedure for a student is to master the rule, apply the rule, analyse the results and form a working rule that is within his own style of writing: a new rule within the original rule. This also might be termed progress. Robert Schumann put it most wisely when he said, "Let the youth who composes be warned. Prematurely ripened fruit falls from the tree. The young mind must often unlearn theory before it can apply it."

Modern composers have learned the rules of harmony and have therefore earned the right to break these rules. Think of a rule as a rubber band which can be stretched but which will break if stretched too far. Rules must be respected, but they are most wisely used when applied within the margin of active creative ability. When you can write well according to the patterns set by the masters who preceded you, it is time then to try your own inventions of melody and harmony. You will be using the fundamental rules of harmony that you have learned, but you will also be testing your imagination and listening ear for combinations of tones that are new and different. You will be making exceptions within the rule.

If you are wondering to what extent you may make exceptions, we can only say, let your musical taste and intent, repeated listening be the judge for the personal style of writing that you will finally develop. Remember the qualities that make a lyric melody, remember the movements that determine a flowing progression, and always keep the bass line smooth and compact.

Several examples of exceptions within the rule have come up in the Course so far. Remember how we doubled the third or fifth at times when the rule argued against it? This was to maintain a smooth progression at that particular moment. Also, the resolution from the D♭ add G chord to the C6 chord in Lesson 39, Page 4. This certainly does not follow the classic rule of resolutions but it *sounds well* in the modern idiom.

Every composer faces the cruel criticism of the public when he dares to speak the language of music in a different manner or with a new approach than that which preceded him by 50 or more years. As a student of modern harmony, you must have the courage to stand by your convictions and create *as you feel*. At all times, listen to the music of others with tolerance and appreciate the work of those who strive along with you.

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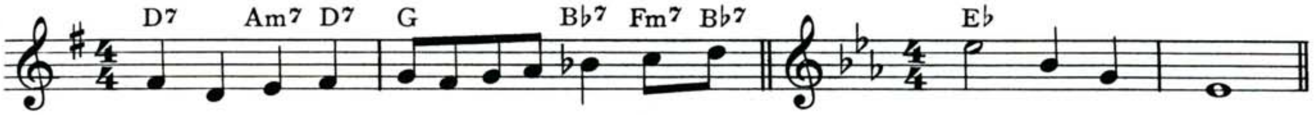
Kinds of Modulation

In Lessons 40 and 41, you learned how to modulate from one key to another. The harmonic flow of your music as you write will direct you into the best choice of modulation. It depends largely on what you came from and where you are going to. Again, it is your keen listening and tonal feeling that determines the best results. Consider now the *kinds* of modulation:

Abrupt modulation is a sudden modulation into keys which are not closely related to the original key. Abrupt means by the use of one or possibly two chords without the help of preparatory bridge chords. Here is an example:



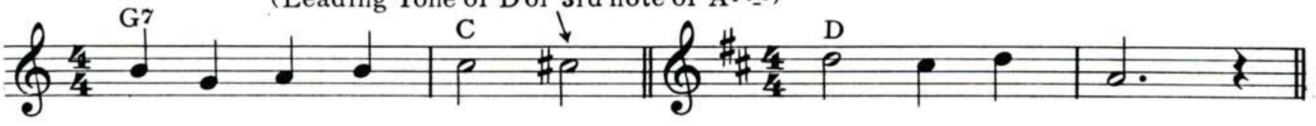
Deceptive modulation is any modulation by which the ear is deceived and led to an unexpected harmony. This is done by using bridge chords that definitely prepare the ear for one arrival chord and the unexpected use of an entirely different arrival chord.

Enharmonic modulation is effected by changing the notation of one or more intervals belonging to some characteristic chord, and thus changing the key and the harmony into which it would naturally have resolved. The best chords to use for this type of modulation are the diminished sevenths and their inversions. Also, the dominant seventh, not inverted, can be employed, and still another way is to use the perfect fifth with the added sixth. Here is an example:

Extraneous modulation is moving into some other key than the original key and its relatives. Naturally, this is by the normal use of bridge chords.

Passing or transient modulation is a form of modulating which leaves a key nearly as soon as it is entered upon.

It is also possible to modulate with only one note. Introduce the new key with the leading tone, seventh note of the dominant of the new key, or with the major seventh of the key introduced. Modulation by the use of one note is handy in transient modulation. The one note appears between the chord being left and the chord being approached. In other words, it bridges the two keys and is actually a passing note.



As you know, the major purpose of modulation is to flow smoothly into a new key preparing the arrival of this change of key with chosen bridge chords. In the modern idiom, writers many times eliminate modulation and bluntly announce the new chord or key-tone without preparation or bridging. Naturally, composers are influenced by the pattern of life which presents itself at the time in which they live. Their style and form of music will be determined by the era, country, customs and mode of living which prevail where and when they live. At present, we use an informal and direct manner of speech, dress and customs. This is one of the reasons why we accept the sudden shock of a new key without announcing its approach by modulation. However, modulatory passages are still more often used than not used, so for your Writing Lesson, why not compose a few of each of the kinds of modulation using the chart of bridge chords in Lesson 41 for a guide? If you feel uncertain about your progressions, send a few examples for correction.

SO YOU WANT TO WRITE A SONG?

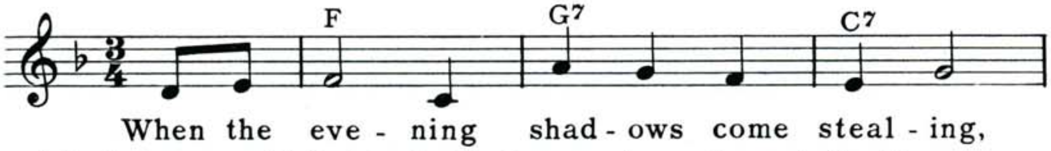
Whether it is a serious concert song, a light semi-classic song or a popular song, your approach to writing the music is about the same.

When a poem or lyric is set to music, the composer should be careful to choose words that feel musical or rhythmic to him. The combination of accented syllables and the meter of the lines must be musically suggestive to his creative taste. As he reads and re-reads, the words and their meaning should definitely suggest the tempo, rhythmic patterns and rise and fall of the music. When you, as a composer, have decided the type of music that fits the words, repeat the first line of words until they *sing themselves to you.* The words and music must be part of each other. The music cannot be manufactured.

Suppose we take a definite line of words and proceed step by step setting it to music.

When the evening shadows come stealing,

If you speak this line, your voice accentuates the syllables with the little line over them. This tells you where the first beat in the measure will fall in the music. Therefore, the first two words become up-beats, and a 3/4 meter is established. The music might sound like this:



The harmony will dictate itself after you have the melody. There are many different ways to write these words in melody but the meter and measure accents will continue to fall in the same place. Remember that the last syllables in a word such as "ing" and "ed" practically never come on an accented beat of a measure. Certain vowel sounds, such as ee and i are hard to sing on an accented beat or on a high tone. Others, like oh and oo are easy. That is why there are so many moon, June, croon rhymes in popular music. Study the words of some songs that are familiar to you and you will soon realize the importance of matching the word accents with the music accents.

The question often comes up: "Which is more important, the words or the music?" The best songs contain a 50-50 balance. The music should complement the words and vice versa. Another common question asks which comes first, the words or the music. In the case of the standard or classic song, many experienced composers have blended their music with the noble words of a poet to make a well loved and always favored song. Likewise, poets have set words to beautiful melodies with inspired success. Many times, composer and poet lived in entirely different worlds and eras, but each felt the same interpretive understanding for the subject matter chosen and the world became richer by another song.

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However, in popular song writing, it seems that the best results have been obtained by the collaboration of the composer and lyricist. This spontaneous writing usually results in a combustion effect on the public and the song lives a short but flashy life. Actually, it can die from constant repetition. In some cases, an inspired collaboration has resulted in a song that never dies; a popular song that has not lost its flavor by repetition and therefore becomes a classic.

There are a few, a very few, song writers who can write both words and music. Cole Porter is one of them. Usually, it is wisest to combine the efforts of two specialists, the composer and the lyricist, such as Rogers and Hammerstein. Teamwork brings a combination of ideas. Often the very start of a song results from a discussion. The title of a popular song must immediately "click". The melody should bring out the meaning of the words, and the words should be so phrased that they are easily sung to the melody. This "working together" usually results in a song that is immediately accepted by the public. The main thing is to aim for imagination, popular appeal, a good lyric and a catchy tune. The lyric should tell a story or portray a picture or mood. Use words of one, two and occasionally three syllables.

A good arrangement has a great influence on the success of a new popular song. If you have only the words and the melody of a catchy "pop" song, its place among the hits can often be determined by whether or not the arranger made a good orchestration and the vocal "plugger" puts it across. In Lesson 47, we will discuss the qualities of a successful arranger. Killing a song by repetition is an unfortunate outcome for many fine tunes but publishing, recording or broadcasting an inferior arrangement is a discredit to the popular field of music.

The publishers are overcome daily with the avalanche of popular tunes that come from Mr. & Mrs. Public. Anyone can write a song and usually does. Unfortunately, there is not a sufficient outlet for all the really good songs. You have the advantage of technical knowledge and this will grow with experience. Therefore, do not send every satisfactory 32 measures you write to the publisher. Polish and preserve each gem of a song; put it away and return to it later; constantly write more songs and finally, when you feel you really have a "hit", make a clean and presentable copy and you are ready to market it. Under no circumstances should you pay to have it published.

As you write a certain type of song, imagine it being performed in the style of a famous vocalist or band with which you are familiar. This will enable you to follow a logical pattern based on the meritable success of those who have tried before you and have worked their way up the ladder of achievement.

Who makes a song popular? The answer to this is your cue for a type of song that may put you in the songwriting business. The "who" applies to any well known name band or vocalist. Your chance

could very easily come from a direct contact with a band leader but your song must fit the style of his band. The other way, of course, is to send your song directly to the publisher. If you have faith in your talent, you will not be discouraged by rejections but instead, you will become more and more interested in the eternal question, "What makes a song a hit?" No one, not even the publisher, can be sure of the final peak of popularity for a song. Having learned by observing the appealing characteristics of "a song that lived", we can all follow a few recommendations for writing such as are mentioned in this and previous lessons.

Be aware of the fact that most popular singers do not have a concert voice range and you should not let the total range of your melody exceed 10 tones. In other words, the lowest to the highest notes in the melody should be an octave and a little more.

The types of songs that sell best are love songs, sentimental ballads, blues and comedy or novelty tunes. The ever favored Western and Negro songs are in steady demand. A popular song must appeal to all types and classes of people; it must avoid controversial subjects, and it must have universal appeal.

Be sure to have your song copyrighted. You may write to the Register of Copyrights, Library of Congress, Washington 25, D. C. for applications and procedures.

Good Luck!

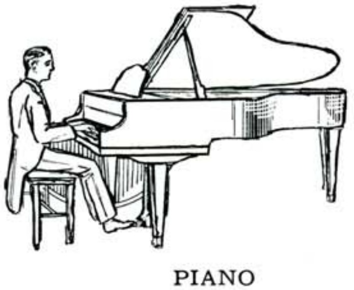
SO YOU WANT TO ORGANIZE A BAND?

It is a dream of many music students to "start a band". Many a famous orchestra leader began his career rehearsing in the attic or the cellar with several of his fellow students. These nightly sessions often disturb the neighbors, but hidden beneath this clamor could be the makings of a fine band. After the youthful band leader has trod the weary paths of experience, he has earned the right to explore the side roads of originality. However, before he can develop his own individual style, he must know the basic combination of instruments that produces well balanced tonal architecture. Beginning with the trio, suppose we consider what three instruments can be used to start a band.

On the extreme left of the Dance Band Chart you will see the three basic instruments that can be used in a three man band. As the chart progresses, the number of instruments increases to add color and variety. We have given you the basic three man band combinations. However, with Piano and Drums, the third instrument can be a choice of any melody instrument.

STANDARD CHART FOR TH
COMBINATIONS OF IN
THE MODERN DA

THREE-MAN BAND			FOURTH MAN	FIFTH MAN	SIXTH MAN	SEVENTH MAN	EIGHTH MAN	NIN M
Piano	Bass	Drums	Trumpet	Tenor Sax	Trombone			
Piano	Bass	Guitar	Clarinet	Tenor Sax	Trumpet			
Piano	Vibraphone	Drums	Guitar	Tenor Sax	Trumpet			
Piano	Drums	Accordion	Tenor Sax	Trumpet	Trombone			
Accordion	Bass	Drums	Tenor Sax	Trumpet	Trombone			
Accordion	Bass	Guitar	Clarinet	Tenor Sax	Trumpet			
Organ	Bass	Drums	Tenor Sax	Trumpet	Trombone			
Organ	Bass	Guitar	Drums	Tenor Sax	Trumpet			
Organ	Accordion	Guitar	Vibraphone	Drums	Tenor Sax			
Organ	Vibraphone	Drums	Bass	Alto Sax	Trombone			
Organ	Tenor Sax	Drums	Guitar	Trumpet	Clarinet			
Piano	Bass	Drums	Trumpet	Alto Sax	Alto Sax	Tenor Sax		
Piano	Bass	Drums	Trumpet	Alto Sax	Tenor Sax	Trombone		
Accordion	Bass	Drums	Guitar	Trumpet	Tenor Sax	Clarinet		
Piano	Bass	Drums	Trumpet	Clarinet	Trombone	Tenor Sax		
Organ	Bass	Drums	Guitar	Trumpet	Tenor Sax	Tenor Sax		
Organ	Bass	Drums	Trumpet	Alto Sax	Alto Sax	Tenor Sax	Tenor Sax	(If d
Piano	Drums	Bass	Trumpet	Trumpet	Alto Sax	Alto Sax	Tenor Sax	Bass
Piano	Drums	Bass	Trumpet	Trombone	Alto Sax	Alto Sax	Tenor Sax	Vibra
Piano	Drums	Bass	Trumpet	Trumpet	Tenor Sax	Tenor Sax	Tenor Sax	gan r
Piano	Bass	Drums	Trumpet	Trumpet	Trombone	Alto Sax	Alto Sax	Teno
Piano	Bass	Drums	Guitar	Trumpet	Trombone	Alto Sax	Alto Sax	Teno
Piano	Bass	Drums	Guitar	Violin	Trumpet	Alto Sax	Alto Sax	Teno
Piano	Bass	Drums	Violin	Trumpet	Guitar	Tenor Sax	Tenor Sax	Teno
Piano	Bass	Drums	Trumpet	Violin	Alto Sax	Alto Sax	Tenor Sax	Teno
Piano	Bass	Drums	Trumpet	Trumpet	Trombone	Alto Sax	Alto Sax	Teno
Piano	Bass	Drums	Trumpet	Trombone	Alto Sax	Alto Sax	Tenor Sax	Teno
Piano	Bass	Drums	Violin	Violin	Violin	Alto Sax	Alto Sax	Teno
Piano	Bass	Drums	Violin	Violin	Violin	Trumpet	Alto Sax	Alto
Piano	Bass	Drums	Trumpet	Trumpet	Trumpet	Trombone	Alto Sax	Alto
Piano	Bass	Drums	Trumpet	Trumpet	Trombone	Alto Sax	Alto Sax	Teno
Piano	Bass	Drums	Trumpet	Trumpet	Trombone	Trombone	Alto Sax	Alto
Piano	Bass	Drums	Violin	Violin	Violin	Trumpet	Alto Sax	Alto
Piano	Bass	Drums	Trumpet	Trumpet	Trumpet	Trombone	Trombone	Alto
Piano	Bass	Drums	Trumpet	Trumpet	Trumpet	Trombone	Trombone	Alto
Piano	Bass	Drums	Trumpet	Trumpet	Trombone	Alto Sax	Alto Sax	Teno
Piano	Bass	Drums	Violin	Violin	Violin	Trombone	Trombone	Trom
Piano	Bass	Drums	Trumpet	Trombone	Trombone	Trombone	Alto Sax	Alto



PIANO

Baritone

HE MOST ADAPTABLE NSTRUMENTS FORMING ANCE GROUPS

Violin

Clarinet

Saxophone (Sax)

Organ

Guitar

Accordion

Bass Fiddle (Bass)

f desired, a Tuba may replace the ıss in bands of eight men or more; braphone may replace Piano; Or- n may replace Piano.)

NINTH MAN	TENTH MAN	ELEVENTH MAN	TWELFTH MAN	
nor Sax				
nor Sax				
nor Sax				
nor Sax				
nor Sax				
nor Sax	Tenor Sax			
nor Sax	Violin			
nor Sax	Tenor Sax			
to Sax	Tenor Sax	(Add Guitar for 11th man)		
to Sax	Tenor Sax	Tenor Sax		
nor Sax	Tenor Sax	Violin		
to Sax	Tenor Sax	Tenor Sax		
to Sax	Tenor Sax	Tenor Sax		
to Sax	Alto Sax	Tenor Sax	(Add Guitar for 12th man)	
to Sax	Alto Sax	Tenor Sax	Tenor Sax	
nor Sax	Tenor Sax	Violin	Baritone Sax	
ombone	Alto Sax	Alto Sax	Tenor Sax	
to Sax	Tenor Sax	Tenor Sax	Baritone Sax	(Add Guitar for 13th man)

Vibraphone

Trumpet

Tuba

Trombone

Drums

The Vibraphone is a xylophone with bars of metal instead of wood. The best range is from middle C to the high C, two octaves above middle C. It can be effective as a solo or as a harmonic background using chords of two or three notes and always marking the chord identification in the music.

Notice the presence of the organ. Since the development of the electronic organ, this instrument has become a most valuable asset to the modern dance band. In fact, most restaurants, night clubs and dance halls now consider an electronic organ as necessary as the atmospheric colored lights.

Utilize this chart, matching the instrumental combinations with the possibilities among your fellow instrumentalists. Remember that these are standard suggestions to be used by the enthusiastic beginner. They are also combinations which will be found in any "stock" arrangements; the orchestral arrangements available in any music store.

Even if your composing desires overcome your "band leader" aspirations, you will find invaluable experience by organizing a few instrumental student friends and holding weekly informal rehearsals. By working out arrangements, becoming familiar with the characteristics of each instrument, and hearing the combinations of tone color, you will come to feel at home with the music of the entertainment world from all three viewpoints: writing, playing and listening.

If you are more inclined toward classical music, remember that these same combinations in the previous chart are adaptable to any ensemble playing semi-classic scores for dinner music, background or operetta performances. Some of the most popular melodies stem from operetta and an enthusiastic and versatile small orchestra is always welcome to play for a show.

You should understand and appreciate the greatest of instrumental combinations, the symphony. However, your first experience in operation should be with the combinations of the valuable chart in this lesson. Here you can work out all the details of study necessary to approach the professional field. If you wish to use your talents further, and have acquired experience with the band or small orchestra, consider advanced harmony studies and look to the future for symphonic writing.

Always keep in mind that each section of the orchestra is comparable to the four part voice writing you have learned throughout this Course. When placed into one score, the result is a wonderful flow of several choirs of instruments, each choir with its own characteristic tone coloring. Arrangers call this "range placement" of the instruments *voicing*. Balance the instruments within the sections and blend the sections within the complete score and you will write coherently and effectively.

THE APPROACH TO ARRANGING

When you write music that is entirely your own, you compose. When you make an original setting of some other composer's composition, you arrange. Yes, you can arrange your own music also. Actually, arranging is "rearranging" a composition that has first been declared a finished product.

This phase of the art has developed rapidly in the 20th Century, and grown to be a major factor in the popular field of music. An arrangement can make or break the rendition of a composition whether it is a beloved old ballad or a brand new "pop" tune. The musician of today who specializes in arranging can spend his entire talents and time on it and will be constantly in demand for radio, television, movies, publishers or dance bands.

Unless you have contracted to arrange a new score by a broadcasting company, movie studio, band leader, etc., do not attempt to publish an arrangement unless you make sure it is in "public domain", which means it has been copyrighted at least 56 years. You may check with the American Society of Composers and Publishers in New York City to verify the age of any publication. If you wish to publish an arrangement of any piece copyrighted within the last 56 years, you must obtain written permission from the publisher of the music.

There are quite a few reasons for writing arrangements. Often there is a demand for a piece to be played or sung by some instrument, or voice, or combination of instruments other than the original setting of the composer.

First, choose the style and rhythm in which you plan to write in order to convert the original piece to the needs and purpose of the new arrangement.

Another good reason for making an arrangement comes with the demand of the public for a new way to express a familiar and much repeated tune. An excellent example of this is the Old Refrain by Kreisler. Originally a violin solo accompanied by piano, it has been arranged for piano solo, orchestra, voice, organ, chorus and practically every instrument capable of playing a solo.

The recording companies are constantly making new releases of old favorites. This type of arranging calls for a great deal of originality and clever harmonic and instrumental coloring. A thorough knowledge of the technical possibilities and tonal characteristics of each instrument, or vocal classification, is absolutely necessary. Final perfection comes with the development of musical taste and experience.

Still another reason for arranging is to write directly in the "style" of a particular band, or vocalist, or well known ensemble of either instruments or voice. If you are an amateur arranger or composer, you might have a better chance of getting your music published if it is tailor made for a definite group of professionals to "plug" it if it has popular appeal. On the other hand, if you are capable of creat-

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ing your own "trade mark" style, you have a good chance of entering the professional field and being contracted to arrange for a name band or vocal ensemble.

Suppose we consider a few of the major factors that enter the mind of the arranger upon approaching a composition with arranging possibilities:

A key change may be necessary. If the melody seems low and forces the majority of bass notes below the C below middle C, the key must be raised in order that the lower voicing does not become thick. Do not make it difficult for the players or impossible for the singer by writing in a key that is out of easy range. Centralize your arrangement by a comfortable key choice. It is best to stick to easy keys such as C, F, G, B♭, D and A. However, a difficult key may sometimes be necessary to assure a proper voicing in a good range. Try several keys within range because a key can have a feeling and one key might feel or sound better than another according to the style of the piece.

Let's take Sweet and Low, which can be arranged in the key of C because it fits well within the range of the melody. Sweet and Low is written originally in 6/8 time. Suppose you wanted to make it a foxtrot. Change the time to 4/4 and alter the note valuations until they fit four beats in a measure. Compare the original Sweet and Low which you will find in any familiar song book with the following foxtrot arrangement for the piano.

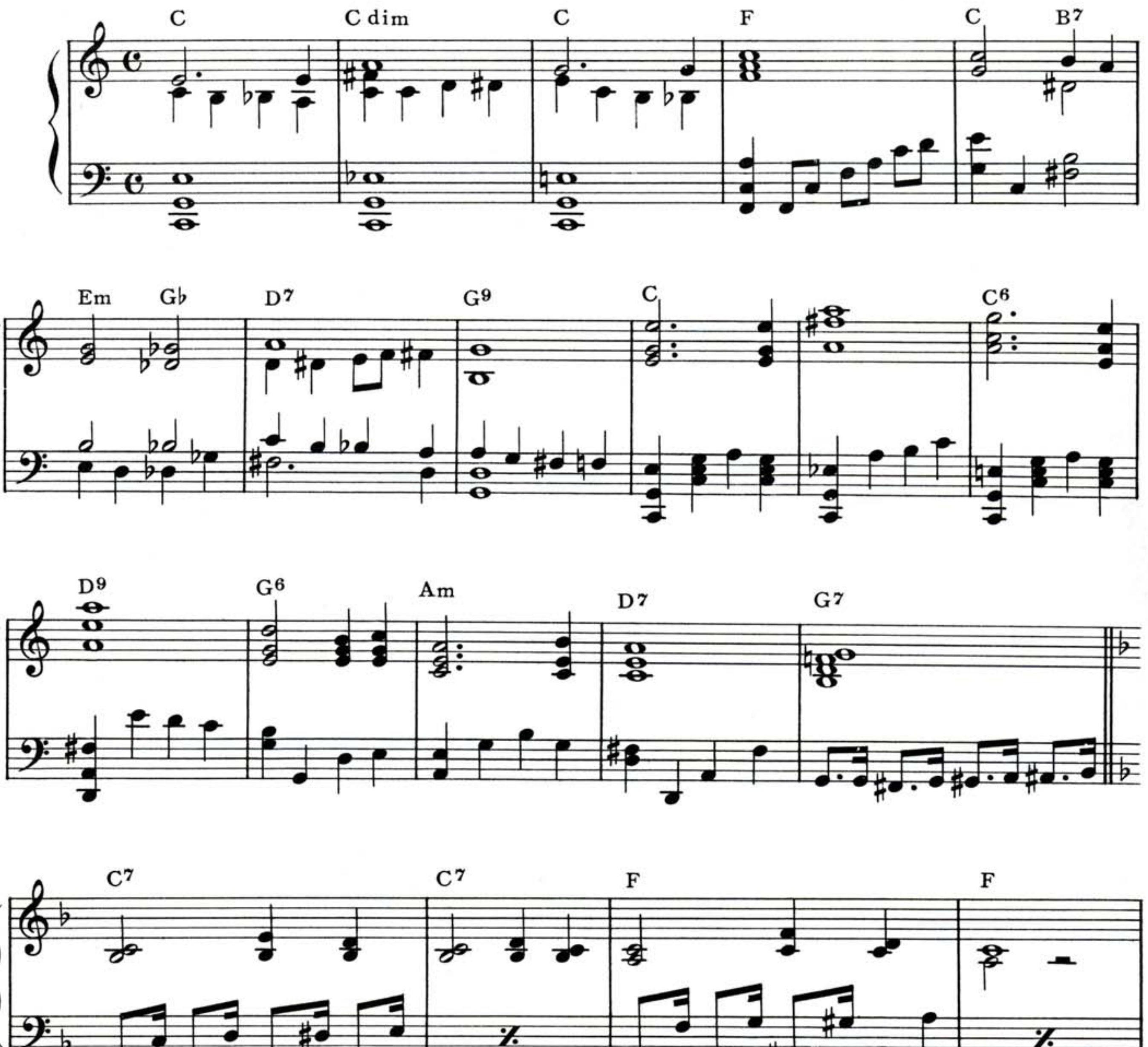
The first 16 bars move along in a normal piano foxtrot style. A feeling for a change in rhythm comes at measure 16 so the arranger has introduced a boogie woogie rhythm in the bass. The rhythm also demands a change of key to complement it and avoid a growling bass line. Often a key change is used to avoid monotony and overcome a lack of dynamics. Eight bars of boogie is enough so measure 24 releases the jive bass and returns to a flowing foxtrot accompaniment which continues to the end.

You might think that some of these chords have been arranged in a harsh manner compared to the simplicity of the Sweet and Low. However, remember that the arranger is at liberty to go as far as he wishes to recreate into whatever style he has chosen as long as the original piece is still recognizable. Good taste and common sense will dictate how much or how little to use your arranging schemes.

When writing an arrangement, keep playing the melody and trying different chords with it until you hear what you want. Get used to using chords foreign to each other but melting or blending in their consecutive order. This is the modern trend of writing as you have learned in previous lessons. Also, become accustomed to 6th, 7th and 9th chords.

Try arranging in all rhythms such as tangos, rumbas, foxtrots, two-steps, waltzes and the swing rhythms. It is great fun to hear a melody take on so many different cloaks of disguise when dressed in various rhythms, tempos and time signatures.

SWEET AND LOW



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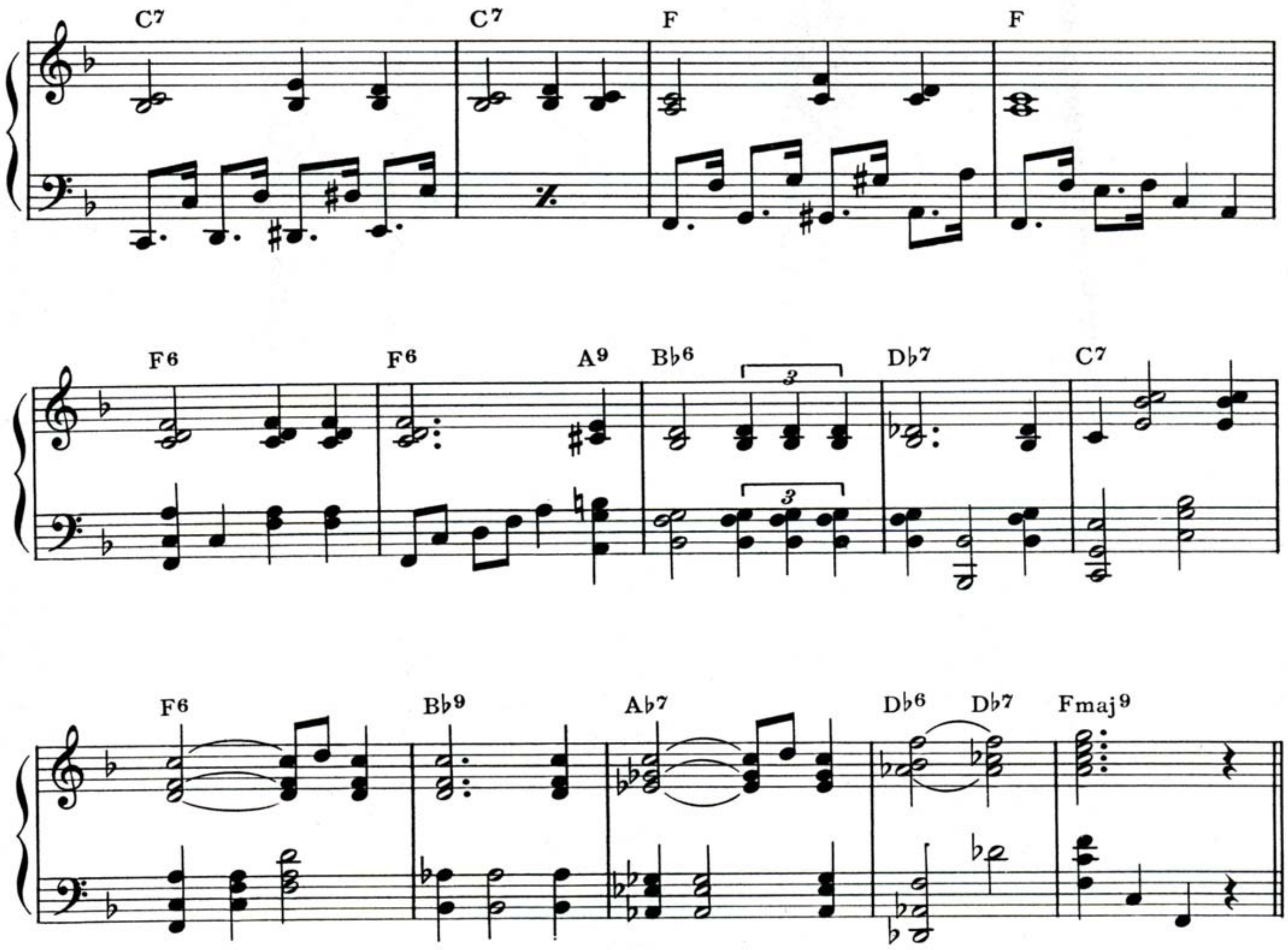
Sweet and Low



THIS IS ONLY THE BEGINNING

In these Lessons of Modern Harmony for the student composer, you have learned to harmonize tones, tunes and talents into your own creative products. You have gained a "know how" of the construction of chords and their motion. You have experienced the pure delight of hearing a melody of your own expressing your feelings in tone and rhythm.

If you wish to write sincerely and progressively, you must continue reviewing and reliving the works of the masters, and then rebuilding and searching for new ways to express in your own music the emotions and experiences of your own life and temperament.

As a serious student of composition, it is your constant obligation to recreate human emotions and a musical reflection of the world you live in. Although you have mastered the fundamental rules of voice progression, there are still many new channels to explore and new methods and approaches to develop.

Remember these three steps to learning:

1. Review and completely understand that which has gone before.
2. Master all technical procedures known thus far.
3. Have the courage to step into the unknown and deal with the "new".

The Interlude

When you have finished a full course meal and ended with coffee and mints, there is an interlude of digestion that must take place before you eat another meal. When feeding the mind, the same procedure must take place. After a year of pouring harmony technic into your brain, there comes a need for a period of mental digestion. However, this does not mean mental laziness. If your stomach refused to do its part after a meal, you might just as well not have eaten. After you complete this Course, there should be an interlude before you continue further study. In this period write a little each day, applying the rules you have learned; sorting out the types of music for which you have the most talent; writing, playing and rewriting until each score is completely up to your expectations and on a par with your ability. Never be satisfied, but go on to each new composition with serious self criticism and the determination to write better with every phrase you originate. And finally, save all your scores that you may compare the milestones of progress and know that you are improving and growing in musical stature.

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The Future

It is most natural that you will have days when your composing efforts will fail and you will become discouraged. It is best not to force your writing at this time. Relax and try again on some future day. If you *must* work at your harmony during this period, it is a good chance to review your Lessons and build more security in your technic.

Scarcely a day passes that we do not hear some music. Stop a minute and count the times you heard music yesterday. You are a part of this art and the more you study, the more you come to understand and appreciate the universal language and its performers. Even if you do not intend to compose to any great degree, you have made yourself a force in the world of music.

When you come to a point in the "interlude" where you have used up all the technic you have learned so far and you seek more knowledge, start from where you left off and study a more advanced course. There is much to be learned. Remember, also, that progress never stops and each day brings more new material to be considered and analyzed and built upon. You are part of the procession of ideas. Keep up with them and never stop seeking for more, either in hearing and appreciating those of others or delving into those of your own.

Your Last Exam

You have noticed an absence of an examination in the last 12 Lessons. Instead, you are entitled to write a complete original composition; 32 measures in length, any key and time signature you choose, and any style you wish, either classical or popular in form. Write this composition for piano, treble and bass, and give it a title.

Send it to the Harmony Department where it will be corrected with suggestions and returned to you. With this instruction, you will be guided in the way to remold and polish your own works.

We wish you every success and happiness in your composing, and a continued progress worthy of your diligent study and enterprise.